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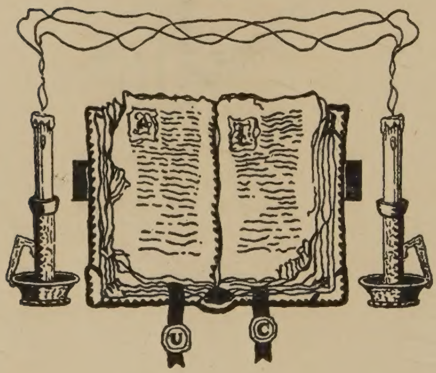

E. E. Lewis.

CAUSES OF THE ELIMINATION OF STUDENTS IN PUBLIC SECONDARY SCHOOLS OF NEW YORK CITY

BY

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PART I

THE PROBLEM

SECTION I

INTRODUCTION

With the growth of public high schools in the United States, there has arisen a situation which, so far, has found no satisfactory explanation. In almost every city where high schools have been established, the entering classes have tasked the accommodations of the high school to the utmost. The number of pupils, however, who complete the course, is, when compared with the number which entered, so small as to excite surprise.

To account for the dropping out of pupils, who enter apparently with the intention of completing the entire course, many hypotheses have been advanced. In only the last two or three years, however, has any attempt been made to make a statistical study of this elimination. Many of these investigations, moreover, have been made under conditions, which, at the very outset, have been so open to charges of prejudice that the results have proved of little value to the students of this perplexing problem.

One of the chief reasons why previous investigations have proved inadequate is the fact that few, if any, investigators have attempted to limit themselves to the study of objective phenomena. In most cases, the questionaire method has been followed, and there have been gathered many interesting opinions; each, however, showing the personal bias of the individual answering the questions and all based on such doubtful and nebulous data, that, while each may have the appearance of reasonableness, still each lacks the evidence necessary for its establishment as truly trustworthy.

It is not the purpose of this present investigation to do more than to furnish assistance to those who are still studying the question of elimination of high school pupils. In one respect, however, this investigation will differ from those that have been made in the past. Whereas previous investigations have included opinions without concrete, objective backing, this investigation seeks to gather only concrete, objective, indisputable data and to exclude opinions, except in so far as the class-room ratings of pupils may indicate the opinion of teachers, who gave each pupil a mark, showing his or her proficiency in certain definite subjects. In order to make such a research possible of accomplishment, the research worker is necessarily compelled to confine himself to a rather limited field and even, in that field, to omit much that would be valuable and instructive were the time and money for the tabulation of this information provided.

In New York City, superintendents and principals have been disturbed by the fact that while money has been spent liberally, almost lavishly, upon magnificent high school buildings, and skilled instruction has been provided at a cost rather above that in the surrounding cities, still the student mortality shows that a comparatively insignificant proportion of the school population avails itself of this opportunity to complete the courses of instruction so freely offered. This situation is, moreover, rendered more disquieting by the fact that while all the entering classes are large (apparently showing that many intend to avail themselves of the opportunity granted for a high school education), yet the graduating classes are so small in comparison, as to indicate a condition of affairs needing some serious consideration.

To those who are intimately acquainted with local conditions, the explanation, offered by some, namely, that the nine who drop out to the one who graduates, drop out because they have not the ability to complete the course, is insufficient. Moreover, unfitness of the instruction or the subjects of study seems insufficient to explain the elimination, because in specialized schools, such as the commercial and technical high schools, the elimination is just as great as in the old time classical schools.

This investigation has, then, because of the promise it seemed to hold of being directly useful to the educational authorities of New York City, been limited to the high schools of that city. The attempt was made to include all the high schools of prominence and to secure the co-operation of many hundreds of teachers. In most cases, the attempt was most cordially met half-way, by both principals and teachers. In a few cases, however, the attempt to collect the necessary information met not only with a first refusal, but with such persistent opposition, almost to the point of bitterness, that certain schools and classes had to be omitted.

SECTION II

METHOD AND AIM OF THIS STUDY

For the schools covered by this investigation we do not seek to answer directly the question: "Why do pupils leave high school before graduation?" by tabulating all the answers to this question that can be secured; but rather we seek to determine by a large series of carefully collected measurements *the kind* of pupils who leave, as compared with *the kind* who stay. The difficulties in securing accurate answers by any purely questionaire method will be made plain by what follows.

In a few concrete, definite cases direct inquiries were made of the pupil by cultivating a personal acquaintance and interest. Some of the personal friends of each of these pupils were interviewed. The pupils' teachers, the pupils' principals, the pupils' parents were each questioned in turn. In these special cases there was little semblance of uniformity in the reasons given. To one person, one reason was given and insisted upon as *the* reason, while to each of several other persons a different reason was in turn given as the "real" reason for leaving school.

A questionaire to determine the assigned reasons for any pupils leaving high school would have to be addressed to a very large number of people and it is doubtful if even then any valuable data could be gathered. Consider, for instance, this concrete instance: A girl in a city high school left at the end of her first term. She was a good student and did her work well. Her parents were fairly well-to-do people of moderate refinement and education. A brother had graduated from a city high school and had entered college.

The reasons given by this girl were carefully gathered by personal inquiry. The causes given and accepted by the people interviewed were:

1. Teacher: Dislike of Latin.
2. Teacher: Desire to study music and art.

3. Principal: Ill-health (wholly false).
4. Classmates: Dislike of a certain teacher.
5. Girl chum: Desire to go to a boarding school.
6. Mother: Dislike of biology.
7. Father: Desire to go to a country school.
8. Brother: Desire to get away from the city.
9. The investigator: Uncongenial classmates.

Probably all of the nine reasons given above were in part active agents in causing the girl to leave school at the end of one term, but what chance is there that any questionaire would have brought them all out? Indeed an "official" inquiry would have elicited the answer "ill-health," which the girl herself admitted to the investigator was wholly false.

Furthermore, some experience with school questionaires has led the investigator to conclude that, with boys and girls of high school age, the answer to a formal question of this kind is seldom determined by the facts, but rather by a desire to give an answer that either will gain sympathy on the one hand, or on the other will magnify the virtues of the pupil who is answering. In each case the answer is a conscious "pose." The pupil desires to affect the recipient of the answer rather than to furnish truth. As in a written examination, the pupil answering a questionaire seeks to please the examiner and so strives to place his answer in the most favorable light.

This rather long explanation of the shortcomings of the questionaire method seems necessary in order to make it plain why this investigation does not go at the question directly, but rather chooses the long and difficult method which is hereafter explained in detail. Therefore instead of answers to a questionaire there will be presented in tabular form a series of carefully secured records and tables extending over a course of four and a half years.

The deductions which the original investigator may draw may not be of permanent value, but the records themselves are open to any other investigator to use in drawing his own conclusions. These careful records may be studied, combined and compared by any student regardless of his previous experience. A thousand pupils studied upon each of some ten or more measurements, makes an undertaking almost beyond the power of one investigator unless he be able to pay for the continued assistance of clerical experts of a high order.

Merely to follow one thousand pupils through high school, keeping track of their progress, promotions, and discharges, without taking into account any other measurement and quality than their school work, is a sufficient undertaking for one man. The study of ages, nationality, father's business, home conditions, choice of occupation, etc., etc., in a thousand cases cannot in fact be done fully by one person. Experience and study has convinced the investigator that more value may result from an extremely limited group of pupils that is studied intensively than from a large group less carefully followed up.

There is an extremely interesting and valuable field of research open to high school teachers whose minds are of a scientific character and who desire to add to the total of the world's useful knowledge. For example, a four years study of a group of one hundred or even fifty high school boys or girls, a study which necessitated a personal acquaintance with each pupil, which introduced the teacher to the children's parents and homes as well as to the pupils' confidences and aspirations would develop many facts which this study must, because of its wider range, omit. Perhaps the best service of this present investigation will be to serve as a basis for other investigations which will follow.

If this present investigation assists other investigators who will do more, by attempting less, the ultimate benefit to the high schools of this country will be sufficient to compensate for the very great outlay of time and money which this investigation necessitated.

SECTION III

DECREASE IN REGISTRATION IN SUCCESSIVE HIGH SCHOOL GRADES

Explanation of System of Grading

In order that one not familiar with the organization of the New York City high schools may understand the tables that are given in this section, a word or two of explanation is necessary in advance.

In the New York City High School, pupils are admitted twice a year—in September and in February. Graduations occur therefore (at the end of three or four year courses) in January and in June. The periods from September to January inclusive, and from February to June inclusive, make up the two "terms" of the school year. The "grades" of a regulation city course are named progressively as follows:

First Year	1st term of the course, Grade 1A.
	2nd term of the course, Grade 1B.
Second Year	3rd term of the course, Grade 2A.
	4th term of the course, Grade 2B.
Third Year	5th term of the course, Grade 3A.
	6th term of the course, Grade 3B.
Fourth Year	7th term of the course, Grade 4A.
	8th term of the course, Grade 4B.

The word "class" properly applies to those groups of pupils within a grade designated by a special class name or number and reciting together. As, for example, in the 2A grade of a certain high school, will be found from one to twenty or more classes, $2A^1$, $2A^2$, $2A^3$, etc., etc.

However, despite the distinctions here made, both pupils and teachers frequently use the words "term," "grade," and "class" as synonymous. So that if any one asked a high school pupil, "In what term (grade, class), are you?" the answer would probably be the same. "1B," "2A," "3B," etc., as the case might be. There appears then a need for a more exact use of words and in this article the words "term," "grade," "class," will be used as indicated below:

Year: a school year of 40 weeks.
Term: a half year, 20 weeks.
Grade: point of advancement in the course toward graduation.
Class: the particular student group with which a pupil meets for roll call daily during a term.

In order to present more fully and exactly the progressive decrease in the number of enrolled high school pupils from term to term as one advances from the first to the fourth year of the course, a series of tables* will be given.

These tables show the reported registration for the first month of each succeeding term within the dates given. It is known that these figures are not absolutely exact. There are always pupils who leave at the end of a term (especially at the end of the Spring Term) and these pupils rarely give formal notice of withdrawal. The names of these pupils are frequently kept on register for some time pending an investigation of the pupil's unexplained absence.

The registration does not therefore correspond with the attendance. There are almost always a large number of non-attendants carried on the rolls. This percentage of non-attendants may rise as high as 25 per cent at the beginning of a term, because many of the pupils who leave at the end of a term are not discharged until some time after the succeeding term begins.

However, despite this admitted discrepancy between pupils enrolled (i.e., on "register") and pupils actually in attendance at recitations, we are obliged to use the register, as on the whole the most satisfactory basis for our comparisons.

For the table of high school enrollment by grades and dates and schools I am indebted to Associate Superintendent Edward

---

*These tables, begun by Mr. Stevens some years before the first steps in this investigation, 1902, gave evidence of the fact that Mr. Stevens had been for some time an earnest student of pupil elimination. To Mr. Stevens, too, more than to any other man, except to Professor E. L. Thorndike of Columbia University, the writer is indebted for active assistance. Through Mr. Stevens's interest and assistance, this investigation was carried on in some schools, where otherwise it would have been excluded.

L. Stevens, who is in general charge of the New York City high schools.

Mr. Stevens's tables show for each city high school the number of pupils registered, in successive grades, the first month of each term, from September 1902 to February 1906 inclusive.

One more point also must be remembered in interpreting these tables. When an entering class of 500 graduates but 50 at the end of four years it must not be supposed that 450 pupils have been eliminated. This is far from the case, as will be shown toward the close of this investigation. The actual figures may show that while but 50 of the original 500 reach the point of graduation at the end of four years' work, still as many as 200 may still be in school as "retarded" pupils pursuing the work of the lower grades and still working upward toward graduation.

Similarly we may find that 500 pupils in the 1A grades are composed not of 500 pupils beginning high school, but of, say, 400 real beginners plus 100 hold-overs!

TABLE OF HIGH SCHOOL ENROLLMENT. (SUPT. STEVENS)

Pupils on Register in the High Schools in Successive Grades from September, 1902, to February, 1906

	1A Sept. '02	1B Feb. '03	2A Sept. '03	2B Feb. '04	3A Sept. '04	3B Feb. '05	4A Sept. '05	4B Feb. '06
1 Boys	339	254	169	133	120	86	71	75
2 Bryant	81	70	40	37	50	33	28	25
3 Commerce	229	167	111	86	75	45	27	26
4 Commercial	236	215	156	125	86	69	.....	.....
5 Clinton	721	550	421	256	201	149	115	146
6 Curtis	160	122	80	63	50	52	46	37
7 Eastern Dist	139	104	64	72	51	49	39	40
8 Erasmus Hall	246	213	209	163	136	126	116	133
9 Flushing	145	126	61	58	28	33	35	25
10 Girls	617	509	340	261	219	186	173	166
11 Jamaica	103	87	70	40	33	37	18	29
12 Manual	286	171	121	102	90	57	41	50
13 Morris	638	446	301	248	210	194	145	140
14 Newtown	61	50	39	32	27	9	18	18
15 Rockaway	40	25	18	12	8	4	3	2
16 Wadleigh	736	479	427	342	224	162	119	118
17 Washington Irving	502	323	178	128	93	56	35	29
18 Richmond Hill	57	37	27	25	17	16	16	13
Total	5,306	3,948	2,932	2,183	1,718	1,373	1,045	1,072

At the time this investigation was begun (September 1905) there were almost no data which were satisfactorily arranged to show the amount or the kind of elimination which was taking place in the New York City schools. Save for the hitherto unpublished tables, especially prepared and kept by Associate Superintendent Stevens for his personal study, there were no figures obtainable except such as could be secured from a study of the monthly and annual reports of the various high schools. There are still (1910) no figures by which we may accurately determine the exact percentage of pupils *within* any certain grade who leave school. There is no record of the total enrollment by grades, nor is there any record of the number separated by sexes, who leave.

To get an accurate statistical basis for computing the exact yearly elimination we would need the net enrollment by grades and sexes as well as the eliminations arranged in the same manner. From existing reports these figures cannot be computed.

Despite this lack of complete statistical information the reports of the Superintendent of New York Schools will be found to contain a great deal of illuminating information bearing upon the question of elimination. Superintendent Maxwell in his Eighth Annual Report comments upon the number of pupils who leave school annually, and gives a table to show their distribution by schools and grades for 1906.

"WHY PUPILS LEAVE HIGH SCHOOL BEFORE GRADUATION"

"The great weakness of our city high schools, as in all other city high schools, is the inability of the schools to retain their pupils.

"The following table shows the number of pupils who were discharged from the several classes in each high school during the school year ending June 30, 1906."

School	Year Ending June 30, 1906								
	1A	1B	2A	2B	3A	3B	4A	4B	Total
De Witt Clinton.	187	98	83	57	34	.....	16	6	481
Wadleigh.......	320	152	93	69	32	25	10	12	713
Girls Technical..	738	313	195	119	69	17	7	2	1,460
H. S. of Com....	175	128	94	47	33	3	2	3	485
Stuyvesant.....	216	83	31	8	.....	.....	.....	.....	338
Morris.........	391	276	151	71	80	39	15	9	1,032
Girls...........	352	175	227	135	68	55	40	15	1,067
Boys...........	245	85	106	48	33	31	23	.....	571
Manual Training.	613	266	165	75	64	25	6	.....	1,214
Erasmus Hall...	133	87	102	60	61	33	45	3	524
Commercial.....	351	142	106	53	42	10	.....	.....	704
Eastern Dist....	180	104	61	21	26	12	11	3	418
Bryant.........	95	40	28	9	2	9	4	.....	187
Newtown.......	27	24	11	10	7	6	5	2	92
Flushing.......	38	13	10	11	12	2	2	.....	88
Far Rockaway..	8	3	2	1	2	1	1	.....	18
Jamaica........	27	15	14	3	4	2	4	1	70
Richmond Hill..	29	11	10	8	6	.....	2	.....	66
Curtis..........	162	75	43	24	20	5	14	.....	343
Totals......	4,287	2,090	1,532	829	595	275	207	56	9,871

These tables show that for the year ending June 1906 approximately 10,000 pupils dropped out of the New York City high schools. Of these pupils almost exactly one-third left before completing their first term. From the first to the eighth grade there is a constantly decreasing percentage as shown below.

Grade...............	1A	1B	2A	2B	3A	3B	4A	4B
Per cent. of total who left during the year..	33.3	21.3	15.5	8.3	6.0	2.8	2.1	.5

These tables show that of the pupils who leave, the greatest number leave before they have completed the first term's work, and that more than half of all who leave do not even complete the two grades (1A and 1B) of the first year of the high school course. The reader, however, will do well to remember that the percentages given do not refer to the proportionate numbers who drop out within a grade. The 33.3 per cent who leave in 1A may be more or less than 33.3 per cent of the pupils in the 1A grade.

To find out the proportionate number of those who leave within a grade we need first the total net enrollment by grades for all the high schools of the city. These figures unfortunately are not obtainable.

However, for the sake of establishing some rough basis for comparison, we can use the registration at the end of the second week in February 1906, and compare this registration by grades with the numbers which are reported to have dropped out during the school year 1905-06. To make this comparison as though all who dropped out in a year were eliminated only during the second term of the year would be manifestly absurd and so we will take half the annual total for each grade, admitting in advance that our figures here are only rough estimates even though worked out as well as can be from the existing data. As we read the following table we must remember that it is wrong to suppose that the number of pupils on register for any one grade (as for example 2B) represents the survivors of a certain single entering group. The reader should recognize the fact that it is quite possible for a group of pupils of Grade 2B to contain, for example, 60 per cent straight promotions, 25 per cent one-term hold-overs, 10 per cent two-term hold-overs and 5 per cent special or irregularly graded pupils.

REGISTRATION BY GRADES COMPARED WITH PUPILS WHO LEAVE

	1A	1B	2A	2B	3A	3B	4A	4B	Total
Total high school registers, mid-Feb., 1906, by grades	6,665	4,860	3,609	2,668	1,816	1,521	904	1,072	23,115
One-half total pupils leaving 1905–06............	2,144	1,045	766	415	297	137	103	28	4,935
Percentage of each grade leaving in a term.......	32.1	21.5	21.2	15.5	16.3	9.0	11.3	2.6	Avg. 21.3

In this table we note the gradual decrease, from grade to grade, in the fraction of pupils who drop out. We do not show however the final elimination which comes at the *end* of the 4B grade. These figures again are not easily obtainable, but it is safe to say that of those who enter the 4B grade a very noticeable fraction fail to graduate.

In another table we show that the actual total number of eliminated pupils has increased from 9,382, in 1904-05, to 13,688, in 1908-09, keeping up in a general way with the increased high school registration.

TOTAL NUMBER OF PUPILS WHO DROPPED OUT OF NEW YORK CITY HIGH SCHOOLS, 1904-1909. DISTRIBUTED ACCORDING TO THE GRADES FROM WHICH THEY WERE DISCHARGED

Supt's. Report	1A	1B	2A	2B	3A	3B	4A	4B	Total	H. S. Register Total
7th.......1904-05	3,954	2,014	1,380	821	559	375	216	63	9,382	....
8th.......1905-06	4,287	2,090	1,532	829	595	275	207	56	9,871	....
9th.......1906-07	4,576	2,132	1,610	923	690	331	203	111	10,576	....
10th.......1907-08	5,042	2,271	1,629	939	628	368	207	126	11,211	....
11th.......1908-09	6,211	2,756	1,913	1,092	685	437	293	301	13,688	36,600

PART II

STUDY OF ENTERING POPULATION

SECTION I

INTRODUCTION TO THE RECORDS

The first step in this investigation was to plan a question card for the pupils, which would supply certain preliminary data regarding both the pupils themselves and the family from which they came. Objective facts, not opinions, were for the most part sought.

After considerable study, the following card was devised.

(1) Last name First name Initial School Year of birth Month Day

(2) Number Street Borough Number Street Borough

(3) From G. S. No. Borough Father's business Father's nationality

(4) What do you intend to do for a living? (1) (2)
(1) Are four years of H. S. necessary?
(2) Do you intend to stay in H. S. four years?

(5) Older brothers or sisters Age What are they doing?

(6)

(7)

(8)

(9) Height Weight What serious illness have you had? When?

(10) Do you have severe headaches? How frequently? Do you wear glasses?

(11)

(12)

About eleven hundred of these cards were filled in by the pupils who entered the various high schools in February, 1906. The reasons for asking most of these questions are obvious.

The first question under caption 4, " What do you expect to do for a living? " is not expected to furnish answers of any permanent value as to what the boy or girl will really undertake as a means of livelihood; but the answers to these questions should prove valuable either by showing the mental attitude of the pupil toward the occupation with which by name at least he is acquainted or by showing that the pupil enters high school without any definite aim or ambition so far as his or her life-work is concerned. In the same way under this caption (4) the question, "Are four years of high school necessary? " (Necessary to prepare for your life-work), is intended to bring out the pupil's knowledge or lack of knowledge of the educational requirements of the work he may have named.

The third question under this same caption was intended to furnish evidence for or against a theory which the writer had long held, namely, that a great many pupils who each year enter the high school do so merely as an experiment to which they are impelled by curiosity, pride or the advice of older friends.

Caption 5 asks information concerning the occupations of older brothers and sisters, to find out something about (1) the economic status of the family and (2) the kind of occupations which the pupils themselves are likely to enter. One point came near being lost to the investigation. This was the influence of the relative age-position in his or her family of the pupil recorded. A boy or girl, who had several older brothers and sisters each earning good wages, is less apt to drop out for financial reasons than a boy or girl, who has a large number of *younger* brothers and sisters who earn no money. The possible value of this information was soon discovered, however, and the question " How many younger brothers and sisters have you? " was added under caption 11, though not until several pupils had been recorded.

After these cards were filled out, a careful review of the pupils registered necessitated the casting out of nearly a hundred cards, as incomplete or untrustworthy, leaving about a thousand pupils as a basis for this investigation.

Many cards were found which in the main were correct but which were evidently in error on one or two points. Where possible, personal inquiry elicited the information sought, but in many cases this method was not feasible. In these latter cases the entire card was not cast out but only the defective answer. It therefore will happen that in but few totals will the number of answers recorded exactly equal the total number of recorded pupils.

SECTION II

ELEMENTARY SCHOOL GRADUATES JAN. 1906

The following figures relate to the number of boys and girls who by reason of graduation from the 8B grade of the public elementary schools in January 1906 were eligible to enter high schools in February, 1906.

Graduates, January, 1906............................ 9,186

The New York City Superintendent's Report for 1906 does not give separately the number of boys and the number of girls graduated at this time, but it does give separately the total number of boys and girls for the combined classes of January and June, 1906.

	Boys	Girls	Totals
Graduates January and June, 1906....	9,041	10,312	19,353

On this ratio of boys to girls we may gain a rough approximation of the January conditions which if based upon the same ratio would give:

	Boys	Girls	Totals
Graduates January, 1906—By sexes..	4,291	4,895	9,186

Each one of these pupils is free to enter without *examination* any course in the public high schools in New York City.

These graduates in limited numbers are also eligible to enter without examination either the high school department of the College of the City of New York (for boys) or the high school department of the New York City Normal College (for girls). Each of these institutions while supported by city funds and free to city residents is under a separate Board of Governors and not controlled by the Board of Education of New York City. Technically, then, these institutions do not belong to what is known as the Public School System of New York City.

Of the number of parochial and private school pupils who graduated from the elementary courses we have no estimate.

We only know that 245 pupils (185 boys and 60 girls) entered the high schools this term from other than the public elementary schools of this city.

The tables heretofore printed are not given for the sake of advancing any theory but merely to show something of the amount and kind of elimination that goes on with little variation from year to year in the New York City high schools. No one has yet attempted to discuss the relative percentages of the total number of pupils eliminated, the comparative elimination by grades nor the number of pupils eliminated by grades who have previously once or twice failed of promotion. However, we print from the 8th Annual Report of New York City Superintendent of Schools, Dr. Maxwell, some of the explanations advanced for the presence of elimination.

> " Extremely difficult it is to determine fully all the causes why so many pupils leave school without graduating. Undoubtedly, however, the chief cause is that many leave to go to work. Probably in the majority of such cases, the hard necessity of earning money is the controlling motive. Such students generally take supplementary courses in the evening high schools. Others there are who leave school to go to work, not because of necessity but because of that restlessness of mind which comes to all students at the period of adolescence, and which is particularly marked amid the excitements of a large city.
>
> There are many, however, whose leaving school cannot be attributed to either of these causes. The following explanations are approximately true:
>
> 1. Children leave school because they have not the natural ability to cope with high school studies. The number of such children is, in my judgment, small.
> 2. Children are withdrawn from high school by parents because the latter fear that their children's health will be injured by what they regard as the excessive amount of home study required by some teachers.
> 3. Children leave high school because they are bewildered for a time and sometimes scared by a school atmosphere very different from the atmosphere of the elementary school which they left—an atmosphere in which the teacher stands more aloof and in which the pupil is thrown more on his own resources.
> 4. A few pupils leave before graduation because they find that there are colleges which will receive them, despite their slender academic attainments, into the freshman class.
>
> These reasons, I believe, summarize the reasons, as far as they are known at present, why children in such large numbers

leave the high school without graduating. It must be the immediate duty of the educational authorities, and particularly of the Board of Superintendents, to remove the causes of dissatisfaction on the part of parents and of pupils."

APPLICANTS FOR ADMISSION TO HIGH SCHOOLS

In February, 1906, the date of the inception of this research, according to the earliest complete reports received by Superintendent Stevens there were 5,871 boys and girls applying for admission to the New York City high schools.

The distribution of those pupils is shown by the following table: (Where both boys and girls attend the same school figures separating the sexes were not obtainable.)

HIGH SCHOOLS	BOYS	GIRLS	TOTALS
1 Boys	335	....	335
2 Bryant	....	....	129
3 Clinton	314	....	314
4 Commerce	417	....	417
5 Commercial	476	....	476
6 Curtis	....	....	128
7 Eastern	....	....	211
8 Erasmus	....	....	454
9 Far Rockaway	....	....	18
10 Flushing	20	20	40
11 Girls	....	478	478
12 Irving	....	718	718
13 Jamaica	....	....	66
14 Manual	....	....	674
15 Morris	....	....	520
16 Newton	....	....	71
17 Richmond Hill	....	....	70
18 Stuyvesant	235	....	235
19 Wadleigh	....	517	517
			5,871

In some cases not all the applicants could be accommodated at the school where first they applied, and so were not admitted. In most cases pupils who were refused admission where they first applied secured admission later to other high schools which were evidently their second choice. In few cases, however, the figures given of the pupils actually admitted seem to show that some 100 or more pupils (evidently for the most part girls) decided not to enter any high school at all, when refused admission to the school of their choice. On the other hand, the entering classes were slightly increased later in February by boys and girls who had applied but had been refused admission to the preparatory departments, respectively, of the College of the City of New York and the New York City Normal College and who then turned to the regular public high schools. There will therefore be found some discrepancies between the applications for admission and the actual admissions with which we are directly concerned.

The following table gives the actual number of admissions to the entering (1A) grade of February, 1906, as copied from the official monthly reports of the various high schools for January and February, 1906.

TOTAL PUPILS ADMITTED JANUARY AND FEBRUARY, 1906

High School	January, 1906				February, 1906				Total		
	Boys		Girls		Boys		Girls				
	P. S.	O. S.	P. S.	O. S.	P. S.	O. S	P. S.	O. S.	Boys	Girls	Total
Boys	310	7	0	0	12	7	0	0	336	...	336
Bryant	51	0	78	0	1	0	5	0	52	83	135
Clinton	282	0	0	0	17	43	0	0	342	...	342
Commerce	348	6	0	0	44	26	0	0	424	...	211
Commercial	431	11	0	0	25	29	0	0	496	...	424
Curtis	57	0	59	0	1	1	0	0	59	59	496
Eastern	51	0	111	21	5	0	22	1	56	155	118
Erasmus	79	3	214	11	0	5	4	0	87	229	316
Far Rockaway	8	0	10	0	0	0	0	0	8	10	18
Flushing	20	0	20	0	0	0	0	0	20	20	40
Girls	0	0	400	4	0	0	45	2	...	451	451
Irving	0	0	491	0	0	0	177	13	...	681	681
Jamaica	13	0	47	0	4	0	14	0	17	61	78
Manual	223	13	411	7	15	0	24	1	251	443	694
Morris	149	0	274	0	18	0	9	0	167	283	450
Newton	33	0	38	0	0	2	0	0	35	38	73
Richmond Hill	27	0	36	0	2	0	0	0	29	36	65
Stuyvesant	183	0	0	0	33	32	0	0	248	...	248
Wadleigh	0	0	517	0	0	0	68	0	...	585	585
Totals	2,265	40	2,706	43	177	145	368	17	2,627	3,134	5,761

Note.—P. S.—Public Schools. O. S.—Other than Public Schools.

PERCENTAGE OF PUBLIC ELEMENTARY SCHOOL GRADUATES WHO ENTERED PUBLIC HIGH SCHOOLS IN NEW YORK CITY JANUARY AND FEBRUARY, 1906

It is not necessary for the purposes of our study to find out the exact percentage of all the elementary school graduates of January, 1906, who entered high school. Indeed such figures are nowhere published by sexes at present. However, we may, by using the official total of 9,186, compare this with the 5,516 pupils who entered from public elementary schools (5,761 less 245 from other schools) and find that 60 per cent so entered.

Using our approximate division of boys and girls we find that about 57 per cent of the boys who graduated from the elementary schools have entered high school and that about 63 per cent of the girls similarly entered.

COMPARISON OF TOTAL NUMBERS

There were admitted to the nineteen public high schools at the time of the inception of this study in all 5,761 pupils (2,627 boys and 3,134 girls). To the particular eleven schools where this investigation was begun there were admitted 4,520 pupils, 61 per cent of the total (1,634 boys and 2,886 girls).

The 1,002 pupils (382 boys and 620 girls) for special study represent 17.4 per cent of the first total, 14.7 per cent of the boys and 19.8 per cent of the girls, who entered high school. Of this total we may say we are dealing in our study with approximately one-sixth of the total entering number or in the neighborhood of one-eighth of all the boys and one-fifth of all the girls who entered at this time. The thousand chosen fairly represent the totals in respect to both hereditary and environmental conditions.

A preliminary classification of the pupils selected for the investigation is here given.

TOTAL ADMISSIONS TO THE ELEVEN HIGH SCHOOLS SELECTED FOR INVESTIGATION; JANUARY AND FEBRUARY 1906

BOROUGH	SCHOOL	BOYS	GIRLS	TOTAL	SELECTED			
					CLASSES	BOYS	GIRLS	TOTAL
Manhattan...	DeWitt Clinton....	342	...	342	2	61	0	61
“ ...	Wadleigh.........	...	585	585	4	0	127	127
“ ...	Commerce........	424	...	424	2	59	0	59
“ ...	Irving............	...	681	681	5	0	121	121
“ ...	Stuyvesant.......	248	...	248	2	62	0	62
Bronx ...	Morris...........	167	283	450	3	38	63	101
Brooklyn ...	Girls.............	...	451	451	2	0	90	90
“ ...	Erasmus Hall.....	87	229	316	4	37	80	117
“ ...	Eastern District...	56	155	211	3	33	53	86
“ ...	Manual Training...	251	443	694	4	58	62	120
Richmond ...	Curtis............	59	59	118	2	34	24	58
Total.....................		1,634	2,886	4,520	33	382	620	1,002

SECTION III

AGES

The first point to be considered in a study of our recorded group is their ages on entering.

Since a study of the table furnished by the City Superintendent giving the ages of elementary school graduates shows there is no substantial difference between the ages of the boys and the girls who graduated in January, 1906, we have not separated the sexes in our table. We give first the figures of the City Superintendent and then the distribution by ages of our recorded group.

AGES OF ELEMENTARY SCHOOL GRADUATES

Borough	Und'r 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	Total of All
Manhattan....	443	2,189	3,248	2,111	669	117	13	1	8,791
The Bronx....	73	460	642	441	201	27	2	..	1,846
Brooklyn.....	234	1,440	2,661	1,975	699	134	15	..	7,158
Queens.......	21	244	469	351	122	17	2	..	1,226
Richmond....	8	63	114	93	49	5	...	..	332
Totals....	779	4,396	7,134	4,971	1,740	300	32	1	19,353

From this table it appears that a little over 60 per cent of the graduates of the elementary schools are of the normal age, and about 40 per cent over the normal age.

The following table shows the average ages of the children graduated from the elementary schools during the year:

Borough	Boys		Girls	
	Yrs.	Mos.	Yrs.	Mos.
Manhattan...........................	14	6	14	8
The Bronx...........................	14	8	14	8
Brooklyn............................	14	9	14	10
Queens..............................	14	10	14	3
Richmond............................	14	10	14	11

AGES OF RECORDED PUPILS

Years	11			12			13			14			15			16			17			18		
	B.	G.	T.	B.	G.	T.	B.	G.	T.	B.	G.	T.	B.	G.	T.	B.	G.	T.	B.	G.	T.	B.	G.	T.
Months 0...	0	0	0	0	1	1	10	10	20	11	17	28	5	19	24	6	11	17	0	1	1	0	0	0
1...	0	0	0	0	0	0	5	10	15	4	19	23	9	16	25	6	5	11	0	1	1	1	0	1
2...	0	0	0	0	0	0	2	10	12	10	21	31	5	17	22	4	7	11	0	1	1	0	0	0
3...	0	0	0	0	0	0	9	14	23	8	13	21	8	14	22	3	4	7	3	0	3	0	0	0
4...	0	0	0	1	1	2	11	16	27	9	22	31	4	9	13	2	7	9	2	0	2	0	0	0
5...	0	0	0	1	0	1	8	13	21	13	24	37	7	12	19	3	3	6	1	0	1	0	1	1
6...	0	0	0	1	1	2	10	11	21	11	22	33	7	9	16	4	5	9	0	0	0	0	0	0
7...	2	0	2	1	0	1	6	14	20	15	15	30	6	16	22	4	4	8	0	0	0	0	0	0
8...	0	0	0	2	2	4	7	16	23	13	12	25	6	8	14	1	1	2	0	0	0	0	0	0
9...	0	0	0	1	1	2	12	11	23	10	23	33	8	9	17	1	1	2	0	0	0	0	0	0
10...	0	0	0	2	4	6	6	13	19	13	16	29	2	5	7	2	1	3	0	0	0	0	0	0
11...	0	0	0	6	5	11	14	20	34	12	17	29	6	6	12	0	0	0	0	0	0	0	0	0
Totals.....	2	0	2	15	15	30	100	158	258	129	221	350	73	140	213	36	49	85	6	3	9	1	1	2

	Boys	Girls	Total
Median..................	14 yrs. 6 mos.	14 yrs. 6 mos.	14 yrs. 6 mos.

B.—Boys. G.—Girls. T.—Total.

AGE AND ABILITY

As the table shows, the age at which the greatest number of pupils enter high school is nearly fourteen and one-half years. Inasmuch as children cannot be legally registered in the first grade of the New York City elementary schools until they are six years old and since the course is eight years long, we would expect to find but few pupils ready to enter high school until they were at least fourteen. As a matter of fact the average age at entrance to the first grade of the elementary school is nearly seven years. Our table of ages, however, shows that approximately three-tenths of the entering high school population are under fourteen.

In the case of pupils who graduated from the elementary school in less than the regulation eight years, since many more pupils lose a year than gain one, there is good reason for believing that our group contains the more able of the elementary school graduates.

The actual number of special promotions for any one term as compared with the total number of promotions may be seen by comparing the following figures: For the term preceding the beginning of the investigation there were in all the elementary schools of New York City a total of 434,706 promotions of all kinds. During this same term there were 19,155 special or mid-term promotions—a ratio of approximately one in 22.7. To a certain extent then these figures may be taken as indicating that the pupil who graduates under fourteen years is more successful in school than twenty-one of the pupils regularly promoted. Indeed the following quotation from the Report of Superintendent Maxwell, 1906, gives us some basis for extending the term "exceptionally successful" to most of the pupils who enter high school under fifteen years of age:

"It is evident that comparatively few children are sent to the elementary schools at six years, the age at which they are legally entitled to enter the grades, and that a large number do not enter until they are eight. These facts have an important bearing on the interpretation of the tables of ages by grades. Here, however, we are concerned only with the very important condition that the majority of the children are considerably over six when they enter school."

It may no longer be urged that while the age for the first compulsory attendance was eight years, and that for graduation by normal promotion was sixteen years, in reality the majority of parents take advantage of the permission to enter pupils at six years, and so normally secure their graduation at fourteen years. To be sure a few may do this, but special promotions must account for the majority of early graduations, all of which goes to prove that as New York City children run, the high schools get more than their share of the most successful pupils in the city in their entering classes.

Returning to the subject of special promotions, we must note that while elementary school principals make frequent use of power granted them to promote children, at any time when the child's ability seems to warrant promotion, still these promotions make up a very small proportion, rarely exceeding, as has been shown, one-twentieth of the number promoted. Yet, of the entering pupils nearly one-third suggest by their ages that they have at least been once marked for special promotion. And of these the 37 per cent under thirteen years of age must be certified to as of "unusual ability," and indeed they are frequently the leaders in scholarship of the respective elementary schools.

On the other hand, the pupils who are fifteen years six months or over, while not in the technical sense "over-age" pupils, still carry the suspicion that they have at least once failed of promotion in their elementary course although sickness and quarantine may account for many such cases. When a pupil enters high school after his sixteenth birthday we can only very rarely attribute this backwardness merely to ill health. To unify and fix these statements on the basis of ages then, we might arrange a rough table of abilities which would be valuable only for the suggestions it might give us.

Supposing the delay to have been due to the pupil himself and not to adverse conditions at home including entrance to school later than at six years of age we may tabulate our entering pupils according to the elementary school standards as follows:

RECORDED CHILDREN SEEN FROM THE ELEMENTARY SCHOOL STANDPOINT

		Approximate per cent of		
Age	Type	Boys	Girls	Total
Under 13	"Extraordinary successful"	4	2	3
13—13-11 mos.	"Very successful"	27	27	27
14—14-11 mos.	"Successful"	35	38	37
15—15-11 mos.	"Rather unsuccessful"	22	24	23
16—16-11 mos.	"Unsuccessful"	10	8	9
17 and over	"Very unsuccessful"	2	1	1
		100	100	100

From this table it would appear that the high schools get the most successful graduates of the elementary schools in about one-third of its entering children and its staple in about one-third, together a total of two-thirds upon which the elementary school has set its stamp of decided approval.

Whether the pupils who were most successful in the elementary schools drop out of high school as quickly as the duller ones is one of the questions to be answered in this research, but at the very start we must notice that the high school pupils will largely represent a selected class of successful elementary school pupils.

Legal School Age

Aside from showing ability which should enable the pupil to remain in high school, the ages may have a bearing upon the time when a pupil is permitted to drop out of his school.

It is well to note from the start that the compulsory education law included in 1906 the ages eight to fifteen so that a pupil to leave school, to do nothing specific, must legally be sixteen years old. "Work certificates," however, may be immediately issued to all children of fourteen or over that are included in our records. If the compulsory education law had then been capable of complete enforcement we could calculate from our table exactly the earliest date at which each school child would have the possibility of leaving school presented to him. According to the legal possibilities we may make the following classification:

May legally leave at once to go to work	69 per cent
May legally leave by or before the beginning of the second term	86 per cent

May legally leave by or before the end of the second term .... 96 per cent

An examination of these per cents should weaken to some extent the value of an explanation frequently offered to account for the high school elimination, namely: " The pupils enter high school to comply with the compulsory education law and leave as soon as the law allows." Legal requirements would hold less than four per cent after the first year. Or in other words, if all left school as soon as they were legally entitled to seek employment there would be an elimination of 96 per cent in the first year of our investigation.

Ages of Brothers and Sisters

There are nearly twice as many boys who are either the youngest in the family or are children with no brothers or sisters, as there are all other boys (with younger brothers or sisters) combined.

Among the girls however we find more girls that have younger brothers or sisters than we do girls who are without brothers or sisters or who are the youngest in the family.

This contrast is marked and may perhaps be taken as evidence that often when family resources are meagre the older boys are sent to work and only the youngest boys are sent to high school. The older girls on the other hand are frequently sent to high school, it appears, possibly in the hope of making teachers of them and so of gaining assistance for the family in a more substantial way than they could hope for as shop girls or factory workers. We cannot but note if our surmise be a true one that the general public hopes to find for their children in the high schools not primarily a broadened intellectual life, nor culture, nor training, but instead chiefly at least a means to making better wages and so in the end to helping the family itself.

"How many children younger than you are there in your family?"

	MAN-HATTAN AND BRONX		BROOKLYN AND RICHMOND		TOTAL		TOTALS
	Boys	Girls	Boys	Girls	Boys	Girls	
Blank (no answer)	0	0	37	170	37	170	207
None younger	113	125	104	86	217	211	428
One younger	42	75	8	24	50	99	149
Two younger	23	45	6	17	29	62	91
Three younger	26	33	6	7	32	40	72
Four younger	13	19	1	5	14	24	38
Five younger	5	10	1	0	6	10	19
Six or more younger	1	4	1	1	2	5	7
Totals	223	311	164	310	387	621	1,008

AGE AND HEALTH

The question was asked "What serious illness have you had?" The word "serious" was defined as one in which the sick person's life was in danger or a sickness "one might have died of." To prevent the tabulating of infant's diseases and to confine ourselves to sickness which would directly interfere with school work at the time of the sickness, the date of each illness was asked. Where the sickness occurred in infancy or before they first entered school, the children were asked not to record the disease, and if recorded the disease was not tabulated.

"What serious illness have you had?"

	MANHATTAN AND BRONX		BROOKLYN AND RICHMOND		TOTAL		TOTALS
	Boys	Girls	Boys	Girls	Boys	Girls	
Blank	41	55	25	59	66	114	180
No serious disease	101	152	94	156	195	308	503
Appendicitis	2	4	2	4	4	8	12
Diphtheria	6	25	14	20	20	45	65
Pneumonia	13	11	4	21	17	32	49
Scarlet fever	27	26	13	25	40	51	91
Typhoid	4	4	3	7	7	11	18
Two of above	4	10	2	8	6	18	24
Serious accidents	4	5	2	0	6	5	11
Nerve or brain diseases	0	6	0	4	0	10	10
Miscellaneous	18	13	3	5	21	18	39
Totals	220	311	162	309	382	620	1,002

Again the investigator has to plead guilty to an oversight in arranging the question card for the pupils. The question was asked " What serious illness have you had? " with the idea of finding the possible relation between serious illness and the endurance, mental and physical, required by a high school pupil. There was also present a desire to find the connection, if any, between illness and the entering age. The mistake lay in not also asking the question: " How many terms of school did you lose through sickness or quarantine? " The answer " None," " One," etc., would help us in finding out how many of the older entering pupils had been kept back by ill-health rather than by lack of mental ability.

However, even with the figures we have, we may form some idea of the situation. Our answers tell us that about one-third of the total number of our recorded pupils have suffered from some serious illness since their school life began. As bearing upon our study of the success of our pupils in elementary school work this fraction would tend to show that our estimates of this success is extremely conservative because if one-third of our pupils suffered serious illness, the supposition that most of these children were retarded at least one term in their elementary school course is not at all absurd.

The arrangement by boroughs is without special significance. The comparison was made for the purpose of finding out if our recorded pupils in one locality were more free from disease than those in another. There seems to be practically no difference in the main. The differences that appear under diphtheria and pneumonia seem if anything to be sex differences rather than borough differences and are probably of no particular value to our study.

A second question bearing upon the health of the pupils and their fitness for hard study was the question " Do you have severe headaches? " A " severe headache " was defined as a headache sufficiently painful to prevent the pupil from studying while it was present. Unless the headaches were stated to recur more frequently than once a month the answers were not tabulated as " Yes," but as " Rarely."

The answers are tabulated as follows:

	Boys	Girls	Totals
Blank	0	0	0
"No" or "Never"	305	451	756
"Rarely," "Very seldom"	26	35	61
"Yes"	51	134	185
	382	620	1,002

These totals show that over 18 per cent of our group do suffer from more or less regular headaches.

As might be expected from their indoor life and manner of dress as well as from other physiological causes the girls are the greater sufferers. Approximately two girls in nine suffer from frequent headaches while but one boy in seven similarly suffers.

That this matter of headaches stands as handicap in the way of progress of any pupil almost all physicians unite in affirming. If these pupils with frequently recurring headaches persevere as well as the non-sufferers it must be at the expense of more mental energy and through the possession of a more serious determination to succeed.

The answers to the question "Do you wear glasses?" are now given.

	Boys	Girls	Totals
Blank	0	0	0
No	345	535	880
Yes	37	85	122
	382	620	1,002

In simpler ratios we may say that about one in ten of the boys and one in seven of the girls wear glasses.

The question regarding eye-glasses accompanied the one concerning the presence of headaches to see if there was any connection between the wearing of glasses and freedom from headaches. No such freedom appears from a comparison of the answers. Of the 37 boys and 85 girls who wear glasses we find that almost exactly half of each group complains of regular and frequent headaches despite the fact that they wear glasses.

This would tend to show either that these regular headaches do not in many cases arise from eye-strain or else that many pupils are suffering from poor and ill-adjusted glasses.* From experience with pupils on this very point the investigator inclines to the latter explanation as more credible.

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* This question of imperfect vision and eye-strain has at this later date of 1910 become more widely appreciated than it was in 1906. Great pressure is now brought to bear upon parents, to have their children's eyes properly fitted with glasses when such need is discovered.

It still might be not an entirely irrational prophecy based upon the fact that half of those who wear glasses suffer no headaches, to state that if our one hundred and twenty-four pupils, who suffer from headaches and wear no glasses, were to secure properly fitted glasses there might be a decided lessening in the number who formerly suffered.

One startling defect, however, still exists and it is one that demands attention. Parents who regard the remedy of defective vision as a fad or an extravagance will when sufficiently "persecuted" by school officials provide their children with "glasses" which are often unsuited to the needs of the child whose vision is defective. Parents have even been known to purchase glasses at pawn shops or similar places without even having their children's eyes tested by an oculist at all. Similarly many irresponsible shop-keepers go through a show of eye testing and the fitting of glasses with no real knowledge of the requirements of the process.

There appears to be now a need for the most careful testing of defective eye glasses as well as the testing of defective vision of school children. This testing of glasses is not overlooked, but, on the other hand, the physicians and nurses who make the tests do not claim to be oculists. Moreover, the schools are not provided with the apparatus for making accurate tests.

A few central bureaus which children could be compelled to visit in school hours would probably serve to correct within a few months after the opening of each school year most of the defects due to poorly adjusted glasses. Such bureaus even expensively and elaborately equipped might still save the city money through the lessening of retardation and its accompanying evils to say nothing of the increased efficiency it might give to hundreds of future citizens.

SECTION IV

NATIONALITY OF FATHER

Up to the time this study was begun (February, 1906) there had been no detailed record of the nationality of the fathers of our high school pupils. Such a study as was then made (February, 1906) must seem crude and incomplete when compared with the extremely careful and exact investigation made by the United States Immigration Commission in December, 1908. Had the investigator known more about ethnography, or had he been able to explain to the pupils the racial distinctions of a nation like Austria-Hungary (with its nineteen races) a more useful tabulation might have been secured from our recorded pupils. As it is, we still have some interesting totals which we might briefly note, though for our discussion we shall use the summaries from the tables prepared for the United States Immigration Commission.

As we look over these tables it may help us to understand the situation if we keep in mind the ratios given below from the Census of 1909 for the country, state, and city.

Residents of	U. S.	N. Y. S.	N. Y. C.
		Per Cents	
Father born in U S	65.7	40.6	23.1
Father born in other countries	34.3	59.4	76.9
	100	100	100

COUNTRY OF FATHER'S BIRTH

	Boys	Girls	Total
Blank	16	25	41
U. S. A	153	293	446
Austria	16	19	35
Hungary	7	5	12
Bohemia	1	2	3
Canada English	3	6	9
Canada French	0	4	4
Denmark	3	2	5

COUNTRY OF FATHER'S BIRTH—*Continued*

	Boys	Girls	Total
England	15	32	47
France	1	5	6
Germany	53	90	143
Holland, Belgium	3	1	4
Ireland	30	46	76
Italy	10	5	15
Norway	2	0	2
Poland	0	1	1
Russia	51	45	96
Roumania	4	2	6
Scotland	7	14	21
Sweden	3	8	11
Switzerland	2	2	4
Spain	0	1	1
Turkey (Armenia)	1	1	2
European Hebrew	1	11	12
	382	620	1,002

REPORT OF IMMIGRATION COMMISSION

Summarized tables of the parentage of our high school pupils have been prepared from the statistics collected by the United States Immigration Commission. These tables and practically all that follows were secured for this investigation from data most generously furnished by Associate Superintendent Edward L. Stevens to whom acknowledgment is again made at this time.

The first table shows the totals for boys and girls attending high school in December, 1908.

[NOTE.—One may be led to criticise the classification here followed on the basis that the Hebrew should not be separately classified because of his religion.

In my own early classification no such distinction was made, all parents being tabulated according to the country of birth. However, in using the figures furnished by the U. S. Immigration Investigation of 1908, I was obliged to classify Hebrews as our Government had done—that is, as a distinct race regardless of the country of birth. The reason given for this was the infrequency of intermarriage, keeping the Hebrew racial stock nearly pure and so racially separate, no matter what language was spoken or where citizenship was established.]

1908 HIGH SCHOOL ATTENDANCE FOR GREATER NEW YORK

Parentage of Pupil	Boys	Girls	Total
American White	4,666	6,610	11,276
American Negro	78	123	201
Bohemian	51	31	82
Bulgarian	9	0	9
Canadian English	84	131	215
Canadian French	13	25	38
Chinese	5	2	7
Croatian	2	0	2
Danish	47	130	177
Dutch	18	23	41
English	323	598	921
Finnish	6	11	17
French	67	103	170
German	1,330	1,443	2,773
Hebrew German	624	652	1,276
Hebrew Polish	171	165	336
Hebrew Roumanian	143	110	253
Hebrew Russian	1,661	1,354	3,015
Irish	618	1,043	1,661
Italian North	148	105	253
Italian South	194	92	286
Japanese	3	0	3
Lithuanian	7	4	11
Magyar	67	53	120
Norwegian	49	76	125
Polish	35	31	66
Roumanian	13	8	21
Russian	36	87	123
Ruthenian	0	2	2
Scotch	140	244	384
Slovak	5	5	10
Slovenian	2	1	3
Spanish American	38	34	72
Swedish	101	164	265
Welsh	7	24	31
Austrian	9	11	20
Armenian	4	1	5
Swiss	3	1	4
Syrian	3	2	5
Negro, foreign	5	5	10
Portuguese	1	1	2
Cuban	0	3	3
American Indian	1	1	2
West Indian	0	4	4
Turk	1	0	1
Flemish	0	1	1
Greek	0	5	5
Spanish	3	6	9
Scotch Irish	3	4	7
Dalmatian	1	1	2
Bermuda English	0	1	1
Australian white	1	0	1
Australian English Chinese	1	0	1
Total	10,797	13,531	24,328

1908 TOTAL HIGH SCHOOL ATTENDANCE ARRANGED BY PRINCIPAL COUNTRIES

Parentage of Pupil	Boys	Girls	Total
American white	4,666	6,610	11,276
Russian Hebrew	1,661	1,354	3,015
German	1,330	1,443	2,773
Irish	618	1,043	1,661
German Hebrew	624	652	1,276
English	323	598	921
Italian North and South	342	197	539
Scotch	140	244	384
Polish Hebrew	171	165	336
Swedish	101	164	265
Roumanian Hebrew	143	110	253
Canadian English	84	131	215
American Negro	78	123	201
Danish	47	130	177
French	67	103	170
Norwegian	49	76	125
Russian	36	87	123
Magyar (Austria-Hungary)	67	53	120
Bohemian	51	31	82
Spanish American	38	34	72
Polish	35	31	66
Holland Dutch	18	23	41
Canadian French	13	25	38
Welsh	7	24	31
Roumanian	13	8	21
Austrian	9	11	20
Scattering Foreign	66	59	125
Unclassified Foreign Hebrew	666	458	1,124
Total	11,463	13,987	25,460

Boys Versus Girls

Comparing first the relative number of boy pupils with girl pupils of the same race, it is interesting to note that the English-speaking parents send a much higher percentage of girls to the high schools than of boys. This is especially true of the children of Irish parentage where the ratio is approximately ten girls to six boys.

Two races alone of those that are represented in any considerable numbers send more boys than girls to high school: The Hebrew races—Russian, German, Polish, Roumanian, etc., send more boys than girls to the high school in the approximate ratio of five boys to four girls (3,265 boys to 2,739 girls). Again the Italians, of whom there is a constantly increasing number in New York City, send more boys than girls to high school. Here the ratio is, as seen, approximately three boys to two girls.

The ratio of sex in the high schools of America, so far as can be secured from obtainable figures, is, according to the computations of Superintendent Stevens, approximately four boys to six girls (43 per cent boys, 57 per cent girls) which makes the larger ratio of boys from Hebrew and Italian parentage still more marked.

GENERAL POPULATION VERSUS HIGH SCHOOL POPULATION

Regarding the relative representation in the city and in the high schools of the predominating nationalities we could speak with more certainty if we had the results of the Census of 1910 which are not yet obtainable.

We must then make our comparisons between the city population of 1900 and the high school population of 1908. (In the Census of 1900, Hebrews are not separately tabulated but are distributed with Russians, Germans, Polish, and "other countries.")

POPULATION OF NEW YORK CITY

COUNTRIES OF ORIGIN	NUMBERS		PERCENTAGE	
	High Schools 1908	Population 1900	High Schools 1908	Population 1900
United States	11,477	907,351	45.1	26.4
Germany	4,049	735,992	15.9	21.4
Russia	3,166	240,805	12.4	7.0
Ireland	1,661	649,302	6.5	18.9
England	921	116,044	3.6	3.4
Italy	539	217,920	3.1	6.4
Poland	392	51,621	1.5	1.5
Scotland	384	37,668	1.5	1.1
Sweden	265	41,234	1.0	1.2
Canada, English	215	19,623	.8	.6
Denmark	177	8,223	.6	.2
France	170	23,203	.6	.7
Norway	125	16,746	.5	.5
Canada, French	38	3,899	.1	.1
Wales	31	3,119	.1	.1
Other countries	1,942	361,472	7.6	10.5
Total	25,452	3,434,222	100.0	100.0

In making all deductions a large allowance must be made for the changes in relative population in eight years 1900-1908. The reader is urged to keep constantly in mind this marked difference.

From this table we find that while native-born parents formed but 26.4 per cent of the population in 1900, such parents furnished nearly half of all the children in high school in 1908.

On the other hand, we find that over half of all the children in high school are children of foreign-born fathers. Not all of these children however are of non-English speaking parentage.

On the basis of the native language of the father, we have a comparison as follows:

NATIVE LANGUAGE	1908 HIGH SCHOOL Per Cent	1900 POPULATION Per Cent
English Speaking	57.5	61.4
Non-English Speaking	42.5	38.6
	100.0	100.0

The brunt of all the struggle to educate children first in the English tongue and second in the subjects of instruction, rests of course upon the elementary schools where it remains constantly a most vexing problem.

However, in the high school, though all pupils understand English perfectly, still a surprisingly large number of pupils speak it imperfectly. This is largely because of the confusion of English and foreign idioms and an imperfect acquaintance with good usage at home, particularly in the matter of our irregular verbs. Yet the real handicap which a high school pupil of non-English speaking parentage suffers is from the bar which is raised between teacher and parent in the matter of a clear understanding of school aims and school requirements. That so many of our pupils of foreign born parents succeed even better than the children of the native born is a high tribute to the indomitable courage and perseverance of these pupils and their parents.

Comparing the percentage of population in the city at large with the percentage represented in the high schools we find the Irish to be apparently the most poorly represented. Forming about 19 per cent of the population they furnish but 6.5 per cent of the high school pupils. Next come the Italians who made up in 1900 6.4 per cent of the population and furnished in 1908 but 3.1 per cent of the high school pupils.

These figures are in part misleading if they are taken to represent the fixed attitude of these parents toward secondary education. Most Irish and Italian immigrants are extremely poor when they land in this country. The struggle for the necessities of life presses too hard upon them to permit their children to continue in school after the legal age for employment (14 years). With the second generation we find a decided increase in the percentage of girls of Irish-American extraction. Though these girls are not separately tabulated, a perusal of the high school roll-books will show that the distinctively Irish names appear in sufficient numbers to justify this statement. The Italians, however, have not as yet made the same advance. On the other hand the Hebrews despite all limitations of poverty or deprivation send from the very first their children to the high schools in large numbers.

Our tables for Russia (largely Russian Hebrews) show that whereas Russian parents make up but 7.0 per cent of the population in 1900, they furnish 12.4 per cent of all the high school pupils in 1908. A large influx of Hebrews between 1900 and 1908 makes this race's devotion to education appear greater in our tables than it really is.

However, the fact remains that of all the races represented in considerable numbers the Hebrews far exceed all others, including the native born Americans, in their appreciation and use of the New York City high schools.

SECTION V

OCCUPATIONS OF PARENTS

Regarding the occupations, we have more difficulty in establishing a true classification, because of the indefinite way in which many pupils answered Question 3 on the register card "What is your father's business?" It is perhaps but natural for a boy or girl to give the most high-sounding title permissible to his or her father's occupation; therefore it is necessary in many cases to allow considerable latitude in the application of some terms used by the pupils. For example, in some known instances children applied the term "tailor" to their father's occupation when the parents worked at some special bit of piecework in a sweatshop. In the same way, it is often hard to distinguish in nomenclature between the head of a shop in which certain things are made and the salesman or employee in the same shop. In a few known cases the children did not distinguish between the employer and employed so far as the nomenclature was concerned. Therefore, in the classification "tradesmen" especially, there will probably be found a small percentage of wrongly classified occupations. For example, when a child answers butcher, the parent may be either a salaried employee who may be discharged on a week's notice or the owner of the shop.

However, with all possibility of error fully recognized, there still will be found in the tables a fund of information as to the occupations of the parents who send their children to high school, even though in certain cases we are unable to determine with extreme accuracy the occupation referred to by the pupil.

A classification like that followed in the U. S. Census of Occupations 1906, would be too vague if we were to use only the five large headings:

Agricultural Pursuits,
Professional,
Domestic and Personal,
Trade and Transportation,
Manufacturing and Mechanical.

So a classification peculiar to this article is used.

No classification would satisfy all workers and the following arrangement has many faults. It will, however, save the reader some of the difficulties attending the reading of a very long alphabetical list.

FATHER'S OCCUPATION

	TOTAL	MANHATTAN AND BRONX	BROOKLYN	RICHMOND
Blank	89	37	38	14
Dead	76	44	29	3
Retired	13	11	2	0
Invalid	1	1	0	0
	179	93	69	17
Professional				
Architect	4	2	1	1
Civil engineer	3	1	1	1
Dentist	2	1	1	0
Doctor	9	1	5	3
Elec. engineer	4	3	1	0
Lawyer	10	5	5	0
Minister	4	2	2	0
	36	15	16	5
Semi-professional				
Artist	6	4	1	1
Chemist	2	0	2	0
Curator	1	0	1	0
Draughtsman	1	0	1	0
Druggist	4	2	2	0
Editor	2	1	1	0
Musician	7	4	3	0
Music teacher	2	0	2	0
Photographer	1	0	1	0
P. S. Teacher	5	2	2	1
Sculptor	3	2	0	1
Singer	1	1	0	0
Surveyor	1	0	1	0
	36	16	17	3
Translator	1	0	1	0
Undertaker	1	0	1	0
	2	0	2	0

FATHER'S OCCUPATION—*Continued*

	Total	Manhattan and Bronx	Brooklyn	Richmond
Federal or City Employee				
Caretaker	4	3	1	0
Civil service	12	7	4	1
Custom house	2	1	1	0
Fireman	4	1	3	0
Policeman	21	14	6	1
Political appointment	7	1	5	1
Postman	9	5	4	0
Street Cleaner	2	1	1	0
	61	33	25	3
Artisans				
Blacksmith	3	2	1	0
Cabinetmaker	8	4	4	0
Carpenter	21	12	6	3
Carver	1	1	0	0
Electrician	4	2	2	0
Fire p'f'g	2	2	0	0
Mason	11	5	5	1
Metal worker	26	9	17	0
Painter	9	6	2	1
Plumber	12	8	4	0
Roofer	1	1	0	0
Stationary engineer	25	13	10	2
Contractor and builder	22	10	9	3
Carriage maker	3	1	2	0
Piano maker	1	1	0	0
Ship builder	1	0	1	0
	150	77	63	10
Printing Trades				
Compositor	29	14	14	1
Engraver	4	0	3	1
Publisher	1	0	1	0
Printer	1	1	0	0
	35	15	18	2
Transportation				
Chauffeur	1	1	0	0
Coachman	6	3	3	0
Driver	9	4	5	0
Expressman	2	2	0	0
Longshoreman	3	1	2	0
Milkman	2	2	0	0
Packer	1	0	1	0
Pilot	1	0	1	0
Porter	4	3	1	0
Sea captain	1	0	1	0
Seaman	1	0	0	1
Steam R. R.	4	4	0	0
Street car conductor	4	1	3	0
Street car motorman	1	1	0	0

FATHER'S OCCUPATION—*Continued*

	Total	Manhattan and Bronx	Brooklyn	Richmond
Transportation—Cont.				
Truckman and mover	4	0	4	0
Telegrapher	2	0	2	0
	46	22	23	1
Clerical Assistants				
Bar clerk	1	0	1	0
Bookkeeper	28	12	14	2
Cashier (store)	3	3	0	0
Clerk	15	7	8	0
Collector	2	1	1	0
Secretary	3	0	3	0
	52	23	27	2
Personal Service				
Barber	7	5	1	1
Chef	1	1	0	0
Elevator man	2	2	0	0
Janitor	4	3	1	0
Turkish bath attendant	1	0	1	0
Waiter	4	3	1	0
Watchman	4	2	1	1
Hotel keeper	5	4	0	1
Restaurant keeper	8	5	3	0
Laundry	2	1	1	0
Hospital superintendent	3	1	2	0
	41	27	11	3
Middlemen (Office Workers)				
Auctioneer	1	1	0	0
Broker	12	6	6	0
Commission agent	22	12	9	1
Insurance agent	12	4	7	1
Real estate agent	30	15	14	1
"Salesman" (sales agent)	21	6	13	2
Theatre agent	2	2	0	0
Transportation agent	1	1	0	0
Unclassified ("agent")	5	3	2	0
	106	50	51	5
Unclassified				
"Fireman"	20	12	7	1
"Factory hand"	8	4	3	1
Knitter	1	0	1	0
Laborer	7	4	2	1
	36	20	13	3
Manufacture and Trade				
Art dealer	1	0	0	1
Baker	4	4	0	0
Brewer	3	2	0	1
Butcher	15	11	4	0

FATHER'S OCCUPATION—*Continued*

	TOTAL	MANHATTAN AND BRONX	BROOKLYN	RICHMOND
Manufacture and Trade—Cont.				
Cigars	16	13	3	0
Coal	1	1	0	0
Flowers	1	0	1	0
Fruit	2	1	1	0
Furnishings	5	4	1	0
Furniture	15	5	5	5
Furs	2	2	0	0
Garden truck	2	1	0	1
Hardware	2	1	0	1
Ice	1	1	0	0
Jeweler	10	3	4	3
Junk	3	2	0	1
Lumber	1	1	0	0
Milliner	2	1	0	1
Papers and stationery	3	1	1	1
Saloon	12	9	3	0
Shoes	6	2	4	0
Silk	2	2	0	0
Silversmith	1	1	0	0
"Stands"	2	1	1	0
"Store"	33	13	20	0
"Tailor"	54	32	22	0
"Manager" (store)	20	11	8	1
"Manufacturer"	7	1	5	1
	226	126	83	17

In order to gain a better basis for comparison and discussion an abbreviated list seemed desirable. If we disregard the smaller subdivisions and confine our attention to the large combined groups of occupations we may arrange a table as shown on page 44. This table gives us an approximate basis for comparison between the high school entering population and the population of the city at large.

In determining the percentage of the male population employed in various occupations, the Census of 1900 was made the basis for our calculations, but these figures were found in some cases too indefinite for our comparison, so additional information was sought from various sources.

In the first place the census figures were tabulated under the smallest groups given and then re-classified to accord with our grouping of the parents of high school pupils so far as that was possible. These figures were then somewhat modified by comparison with other sources of statistical information to give us the totals we used in calculating our percentages.

It can be readily seen that our final percentages are carefully prepared estimates of the distribution by occupations, but will not be easily capable of verification because of the number of sources of information from which the figures were secured. The most uncertain figure is that given for Federal and City employees which might be raised to 6.0 per cent under another basis of classification.

SUMMARY

OCCUPATION OF FATHER

Occupation	Total	High School 1906	Population 1900
		Per cent	Per cent
Professional	36	4.4	2.3
Semi-professional	36	4.4	3.7
Artisans—contractors	150	18.1	16.4
Federal and city employees	61	7.4	3.6
Clerical helpers	52	6.3	11.2
Office workers, agents	106	12.8	7.9
Manufacturer and trade	227	27.5	28.1
Printing trades	35	4.2	2.5
Personal service	41	4.9	7.7
Transportation	46	5.5	6.6
Factory—labor	36	4.4	10.0
	826	100.0	100.0

In comparing the percentage of males above seventeen employed at various occupations with the per cent in these same occupations who send children to high school we must take into consideration the necessarily uncertain figures of our 1900 Census. How many in the percentages given have any children at all, how many have children of high school age we cannot determine.

In some ways it might have served our purpose better to have taken the Census of 1890 as our basis as we would thereby gain an estimate of more of the men old enough to have children of high school age. On the other hand, the influx of foreign born parents and immigrants between 1890 and 1900 would make for inaccuracy in our estimates. On the whole, our present plan seems the best obtainable.

At the start we note that the children of city and government employees apparently use the high school to a much greater extent than the proportional percentage of their parents in the population would suggest. It seems quite evident that the value of a secondary education is most seriously appreciated by the policemen, firemen, and postmen of this city. Our recorded pupils show over twice the percentage that we should expect on the basis of an equal representation in school and in the city population. This may, however, be due to our classification.

Men engaged in the printing trades also seem to be better represented in high school than their numbers in the city would suggest. In proportion to their numbers they come next to the city employees in their use of the high schools.

Third in their relative representation comes the class we have tabulated as professional or semi-professional occupations.

Had we not the figures before us we would probably attribute to the children of the better educated parents a much higher per cent of the high school population. It might reasonably be expected that a majority of the patrons of the high schools would be parents with the better education. Such does not seem to be the case in this investigation, for the children of the professional and semi-professional classes form less than 9 per cent of the children recorded.

Among the explanations offered, are the following:

1. The children of the professional classes largely attend private high schools.

2. The families of professional men are very small in comparison with the families of other classes of workers.

Fourth in their relative use of the high school comes the group called "Office Workers and Agents." These men are brokers, commission agents, insurance and real estate agents who are very evidently of the better educated classes themselves,—often men of means as their rentals indicate. That these men should send their children to high school in considerable number is to be expected.

Artisan-contractors, manufacturers and tradesmen send to high school nearly half of all the children who attend. The representation of these men in the population and in the high schools is about the same (approximately 45 per cent).

Clerks and bookkeepers apparently do not use the high schools in as large a proportion as their numbers in the population would at first suggest but it must be recalled that very many men recorded as clerks, bookkeepers, etc., are young men, often unmarried, who are "working up" in their various lines of business.

Those engaged in transportation (drivers, truckmen, street car employees); are not as well represented as most groups, yet as well as we might expect, ages and salaries being considered.

As bearing upon the use made of the high school by the children of artisans, mechanics and other skilled hand workers, there may be another factor beside the ambition of the parents in impelling the boy or girl to attempt a secondary education. This may be illustrated by the following condition:

The writer had occasion in a neighboring city to compare the parentage of the children attending the two high schools there, the one a classical school of the older type, and the other a manual training school. It was observed that the classical school drew not only from the richest classes (where a college education was assured the boy or girl) but equally or even more from the classes where manual work in factories or shops was bound to be the ultimate occupation of the majority of children. On the other hand, the manual training school was patronized very largely by parents whose own work was largely or wholly brain work and whose children never did manual work outside of school.

The reason why the children of the brain workers should seek to acquire some manual dexterity is more obvious than the reason why the future manual workers should avoid the training that was intended to be directly useful to them. So far as the writer was able to explain this condition he found it to rest upon:

1. A false pride that led the sons and daughters of manual-workers to look down on hand-work and seek as long as possible to avoid it.

2. The idea that the study of the classics would make "ladies and gentlemen" of the students and give them a refinement that they otherwise would miss forever.

Both of these motives, present-day educators would be rather inclined to class as unworthy, and yet there is much in the elementary education of boys and girls to-day to force them into just such conclusions. The standard argument for making a boy study when he wishes to leave for work, or even when he fails in his daily lesson, is the horrid example of the day-laborer. "Do you want to be a ditch-digger?" "Do you want to work with your hands all your life?" are the interrogations he constantly hears. Year after year the boy hears one teacher after another anathematize hand-work until he regards hand-work somewhat as he does pauperism or crime, forgetting that hand-and-brain-work may be labor of the very highest type.

The cultural benefit of the classics has already begun to be more truly estimated by students of education, but in the schools the classics are still all-powerful things to conjure with. The elementary school boy who cannot see the use of English grammar (which Shakspere never studied) is told that it will give him "culture," make him more refined, take him from the dreaded hand-labor class. So there is built up in his mind a connection between the classics and an escape from hand-labor which works strongly in the decisions he is called upon to make when he graduates from elementary school. How far this same spirit is found in the New York City schools the writer is unable to say, but it seems probable that the possibility of escape from manual work is a strong factor in sending some boys and girls to high school; and it may be that the children of skilled hand-workers, who make up such a large fraction of the high school population, are impelled by some such motives to continue their education when the children of other classes "go to business" at the end of the elementary school course.

Returning again to our tabulations we may agree that on the whole the figures may well cause surprise because they apparently show that the high schools are used chiefly by the children of parents who themselves never, in all probability, carried their own education beyond the earlier years of the elementary schools. Even the class we have tabulated as unskilled labor is represented by 5 per cent in high school, which on the basis of our records would apparently show that approximately every other unskilled laborer had one child in high school.

The democratic nature of the high school is, so far as its patronage goes, indicated beyond question by our records, though through its traditions as shown in the course of study the high school still stands as a representative of a training school for the privileged classes, the aristocracy of earlier days. In their struggle toward higher intellectual levels the city laborers of to-day send more children to the public high schools than do the lawyers of our city.

The question that must constantly recur is again suggested: Does the curriculum which we have inherited from earlier and different social conditions still stand as the best one to meet the present situation?

SECTION VI

CHOSEN OCCUPATIONS OF PUPILS

THE CHOSEN OCCUPATIONS OF BOYS

"What do you expect to do for a living?"

No Choice Made	
Blank	27
Undecided	129
	156 (41 per cent)

Partial Choice	
Go to college	9
Some profession	6
	15 (4 per cent)

Architect	7
Artist	2
Banker	1
Bookkeeper	3
Botanist	1
Brewer	1
Broker	1
Business	36
Cheese-merchant	1
Chemist	2
Dentist	2
Draughtsman	3
Electrician	9
Engineer	5
Civil	39
Electrical	27
Mechanical	5
Locomotive	1
Steam	1
Engraver	1
Farmer	1
	149
Forward	149
Forester	1
Insurance	1
Law	24
Literary work	1
Machinist	1
Medicine	7
Merchant	1
Pharmacist	3
Policeman	1
Printer	1
Salesman	2
Ship-builder	1
Stenographer	1
Surveyor	1
Teacher	11
Teacher of gymnastics	1
Teacher of music	1
U. S. army	2
U. S. navy	1
	211 (55 per cent)

Studying the totals in the above table the reader will note that of the 355 boys who made some answer to the question "What do you expect to do for a living?" some 129 boys had not in reality or even in imagination a sufficiently clear conception of their probable or desired work to be able to state it in answer to a simple question.

At first glance it may strike the reader as remarkable that so large a number of the boys (7 per cent Blank, 34 per cent

Undecided) have *not* thought of any definite kind of work as means of earning a living. This may still seem more strange when one considers that within two years a majority of these boys will be at work earning part or all of their living expenses. The fact that these boys are young is not in itself a complete explanation since the great majority of all New York City school boys go to work at fourteen years of age and these boys are already older than many of their friends and playmates who are at work.

Viewed from opposite standpoints the boy who, at fourteen and a half years, has no definite work in mind may be either of superior or inferior mental material. The boy who wants to know more of the business world, to know more of the earth and its people, to make more acquaintances, to get the judgment of more men before making a choice of his life work is a boy of a superior mental type. But the boy who just wants "a job," *i.e.*, any chance to make money, not caring what, is not apt to be of as fine a mental fibre. In either case, however, the failure to choose may be due to immaturity evidenced by the lack of information at the pupil's command.

However, not only the immaturity of the boy himself but the conventional way of securing a position may be to blame for this lack of definite aim on the boy's part. The boy knows the way he will secure a position finally. Either his father or a friend of the family will find him a "job" (about which the boy has no choice) or else the boy himself will follow the "want columns" of the daily papers and accept almost any position that promises beginners a fair weekly salary. Possibly the boy who knows the difficulties surrounding the securing of a really promising position feels diffident about expressing himself definitely regarding a chosen line of work particularly when he feels that he must beg rather than choose at the beginning of his period of employment.

The 211 boys expressing some definite choice cover 40 occupations. As compared with the very varied occupations of the fathers or the older brothers this selection is an extremely narrow one. Narrow as this is, when we cut down the list to occupations selected by more than 2 per cent of our 211 boys who made a choice, we have but *nine occupations* remaining.

CHOICE OF OCCUPATION BY BOYS

Occupations Chosen by Five or More (2 Per Cent) of the 211 Boys Who Expressed a Choice

	Pupils	Approx. Per Cent
Architect	7	3.3
Business	36	17.0
Electrician	9	4.2
Engineer	5	2.3
Engineer, civil	39	18.4
Engineer, electrical	27	12.7
Engineer, mechanical	5	2.3
Law	24	11.4
Medicine	7	3.3
Teacher	11	5.2
‡ Miscellaneous trade	8	3.7
‡ Miscellaneous construction	14	6.6
‡ Scattering	19	9.0
Total	211‡‡	100

‡ No single occupation chosen by 2 per cent of the total who made a choice.

‡‡ Total making a definite choice, 211, or 55 per cent, of the total number of recorded boys.

So far as our recorded boys indicate the true condition, the engineering occupations appeal most strongly to our high school pupils. This can in part be accounted for by the tremendous amount of engineering work which has been going on in New York City during the past ten years. Aside from the constant erection of huge twenty to thirty story buildings in considerable numbers, three immense bridges have been begun or completed, the subway has been built, Riverside Drive extended, trolley lines extended, the elevated roads electrified, North and East Rivers have been tunnelled, railroad stations have been remodelled and the newspapers have been full of engineering schemes for Greater New York. Little wonder then that so many of our pupils have been affected by these gigantic undertakings and that their desire to take part in this work of construction and re-construction has been thoroughly aroused.

To newspaper reading may in part be attributed the rather large number of boys who have selected the practice of law as their occupation. With the reports of celebrated trials the newspapers have appealed to the public for attention. The origination of huge combinations of industries, the formation of trusts, have been prominently displayed in the news columns of the daily press. Finally, the reports of immense fees of corporation counsels have undoubtedly appealed to the imagination of many boys.

On the other hand, with nearly one-third of all our male population (Census 1900) engaged in Transportation and Trade we find a surprisingly low percentage of our total group selecting an occupation within this group. If we add to our 36 boys who expect to follow some "business" occupation all others who would come under the heading of "Transportation and Trade" we still have only 44 or approximately 21 per cent of those who expressed a choice. Whereas if we add to the civil, electrical and mechanical engineers the other allied occupations of construction, we have a total of 106, or 50 per cent, of those naming their choice of an occupation.

To a certain extent the recent construction of several magnificent high school buildings together with the rather recent establishment of new high school courses in manual training and mechanical lines may also have drawn still more boys toward mechanical work and construction. On the other hand, apparently the high school as a means of better preparation for trade is either not appreciated by parents or pupils or else it is correctly understood but not chosen because it seems to point to a preparation for other occupations than that of trade. Certain it is that there is a demand for a business education short and introductory in its nature, and that this demand is not encouraged or met by our high schools. Side by side with our high schools, hundreds of "business" schools and "business colleges," flourish under the patronage of thousands of pupils who cannot find in the public schools the combination of subjects that they demand within the time at their disposal.

Educators are apt to turn up their noses at the "business training" of those short-course schools. And yet this is exactly what the public wants and wants badly enough to pay tuition for, even when books and tuition are furnished free in our commercial courses at the public high schools. It is an ethical as well as an educational question whether the parents or the teachers should decide upon the length and difficulty of a commercial course. Surely the longer course is the better one; but surely too the parents who wish a shorter course for their children should receive some consideration from the public school system which they directly or indirectly support.

Finally, the records of previous high school classes have shown us that probably not more than one in eight of our entering boys will even graduate from high school, to say nothing of completing a college course, yet practically all the high school boys who have *in any numbers* chosen a definite line of work, have, with the exception of 36 who are going to "business" and 14 electricians and engineers, limited themselves to eight or nine lines of work each of which requires at least graduation from both high school and college or professional school. It would then appear that very many of the boys regard the high school course as the first step in a specialized training toward a rather narrowed field of work. These boys look for definite preparation rather than general training. Although with our technical courses and commercial courses (included as they are in this study) we might expect to find a tendency on the part of many pupils toward expressing a limited choice of occupations still we would not expect by any means a tendency as extreme as the one which our figures indicate, on the part of the very great majority of those who are looking ahead to their ideal occupation. Out of nearly four hundred boys who were asked to name their expected vocation but forty occupations were named. Of these forty the majority of those making a selection named but nine occupations: Architect, Electrician, Engineer, Civil Engineer, Electrical Engineer, Mechanical Engineer, Law, Medicine, Teacher. Business (meaning trade) may also be included in this list making a tenth occupation ranking next in choice to engineering occupations.

The large number of girls who either avoided this question or recorded their answer as "Undecided" may possibly be understood as girls who expect to be sometime wives and mothers and who have not seriously considered the question of doing anything for a living themselves. A more tactful question on this point might have disclosed the reason for so many "Don't know," "Haven't decided," "Can't tell," answers among the girls. Practically one girl of every two was unable or unwilling to state what occupation she would like to follow.

THE CHOSEN OCCUPATIONS OF GIRLS

"What do you expect to do for a living?"

Blank	56	(51 per cent)
Undecided	260	
"College"	26	
	342	(55 per cent)

Artist	2	
Author	1	
Bookkeeper	9	
Business	4	
Designer	6	
Designer of book covers	1	
Dressmaker	7	
Housekeeper	2	
Librarian	3	
Law	2	
Medicine	1	
Milliner	2	
Musician	7	
Office work	2	
Pharmacist	1	
Stenographer	46	
Teacher, public school	167	
Teacher, elocution	1	
Teacher, music	12	
Teacher, physical culture	1	
Telegrapher	1	
Total	278	(45 per cent)
Grand total	620	(100 per cent)

One explanation is that many of these girls recorded as undecided are expecting some time to marry and keep house, but did not wish to record this on their answer card. Until that time comes they will help their mothers at home but will not work regularly in stores or factories. A number of these girls with whom the investigator talked after the cards were filled out frankly said that they did not expect to "work out" for a living. How large this fraction is there is no way of determining now that the pupils are scattered.

On the other hand, the above is not by any means the only possible explanation. Another entirely different view may be taken of this large number of undecided girls. More than 41 per cent of the boys have no chosen line of work, the possible reasons for which were discussed. May it not be reasoned that of the 51 per cent of "Blank" or "Undecided" girls, very many are governed by the conditions that affect the 41 per cent of undecided boys?

Supposing similar conditions to obtain for boys and girls we find that but 51 per cent less 41 per cent, or ten per cent, of the girls undecided for purely feminine reasons. Indeed the striking difference between the attitude toward life and work of the modern girl and the girl of seventy-five or even fifty years ago, is nowhere better shown than in looking at our replies to this very question, "What do you expect to do for a living?"

We have noted the large number that are undecided or unwilling to answer and in doing so perhaps have lost sight of the more important fact, namely, that nearly half of the girls who enter high school, do so apparently with the idea of becoming self-supporting in the not far distant future. Whereas, only 55 per cent of the boys, all of whom must become self-supporting, have in mind some chosen line of work, the girls show 45 per cent that have selected something definite which they hope to take up as a means of self-support. It is interesting, too, to note that there are girls, as well as boys, expressing their intentions of preparing to enter the practice of law or of medicine.

Of the twenty-one occupations, chosen by the girls who expressed their choice, only seven are included when we narrow the list to those occupations selected by more than 2 per cent of the pupils making a choice.

CHOICE OF OCCUPATION BY GIRLS

OCCUPATIONS SELECTED BY MORE THAN 2 PER CENT OF THE 278 EXPRESSING A CHOICE

OCCUPATIONS	PUPILS	APPROX. PER CENT
Bookkeeper	9	3.2
Designer	6	2.1
Dressmaker	7	2.5
Musician	7	2.5
Stenographer	46	16.9
Teacher, in public school	167	60.0
Teacher, music	12	4.3
‡ Scattering	24	8.6
	278‡‡	100

‡ No single occupation chosen by 2 per cent of those expressing a choice.

‡‡ Definite choice made by 278, or 45 per cent, of total 620 recorded girls.

Teaching easily leads all other occupations as the favorite choice of the girls. Indeed there are almost twice as many girls who choose teaching as those who choose all other occupations combined. For teaching, the way is open through free training schools to actual positions attractively paid. No initiative is required, but merely the compliance with certain scholastic standards. The candidate is given a socially respectable position which is secured her for life on good behavior. The salary for a beginner is $600 (or $660 in a boys' class) with small annual increments during fifteen years to over $1,200.

Figures collected by Mayor Gaynor's Commission on Teachers' Salaries show that the average length of service among women teachers is approximately five years in the elementary schools. Until a girl marries she finds in teaching a gentle position with apparently short hours and long vacations. Moreover, most girls are very fond of their teachers and the impulse to emulate them is strong indeed. The salary, too, though generally agreed to be inadequate for the actual service rendered, is enough higher than that of the ordinary positions open to New York City girl-workers to prove very attractive to a girl in her teens.

Incidentally we are here furnished with a sidelight on the campaign which has been carried on by certain women teachers for equal pay. The higher salaries* offered to men teachers in elementary school attract 11 out of 382 boys to teaching as a means of making a living while the lower salaries offered to women teachers attract 167 out of 620. In other words, less than 3 per cent of all the boys are attracted to teaching while more than 25 per cent of all the girls hope to become teachers. On this basis one might be tempted to assert that even without "equal pay" teaching is now more than eight times as attractive to girls as to boys.

When we consider only the numbers expressing some definite choice we have only 11 boys in 211 attracted to teaching, and 167 girls in 278 similarly attracted. Here our percentages are: boys 5.2 per cent; girls 60 per cent. From this the relative attractiveness of teaching as a means of livelihood might be estimated in 1906 as 11 times greater among the girls than among the boys.

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* Elementary schools—Men $900-2,160; women $600-1,320. High schools—Men $900-2,400; women $700-1,900.

Next to teaching, but a long way separated from it in numbers, comes stenography as a means of livelihood. The great number of girls employed as stenographers are evidently trained in the "business colleges" already discussed, for the demand would not be met by our limited percentage. Here again arises the ethical educational question as to the responsibility of the public school system in the preparation of girls for office positions.

SECTION VII

OCCUPATIONS OF OLDER BROTHERS AND SISTERS

The occupations of the older brothers and sisters of our recorded pupils are valuable as an index to home conditions, economic and educational, and also, to some extent, to the probable occupations of our pupils themselves a few years later on.

We have noted the extremely abbreviated list of the occupations which our pupils think they will prepare to follow as a means of livelihood. In contrast with this narrow choice of at most forty selected occupations we find in these same families upwards of 160 different occupations represented by older brothers or sisters. These tabulations will show the character and quality of our high school pupils and of the homes which they represent nearly as well as a house to house canvass could grade it. By reading these tables we may to some extent infer the probable distribution of our pupils a few months after they have dropped out of school to go to work.

As one reads the list it will perhaps assist in making vivid the situation if one asks himself "What does the high school do (or perhaps what should it do) for boys and girls many of whom will shortly take similar positions?"

CONTINUING EDUCATION

B—Brothers S—Sisters

	Manhattan and Bronx		Brooklyn and Richmond		Total		Totals
	B.	S.	B.	S.	B.	S.	
College (not named)	10	3	6	3	16	6	22
C. C. N. Y.	3	0	2	0	5	0	5
Columbia	5	0	0	0	5	0	5
Cornell	0	0	2	0	2	0	2
Normal	0	1	0	0	0	1	1
West Point	0	0	1	0	1	0	1
Yale	0	0	1	0	1	0	1
	18	4	12	3	30	7	37
Law student	2	0	5	0	7	0	7
Medical college	1	0	1	0	2	0	2
Technical school (trade)	3	3	1	1	4	4	8
Business school	0	4	1	3	1	7	8
Music school	0	0	0	1	0	1	1
Normal school	0	0	1	0	1	0	1
Training school for teachers	0	2	0	4	0	6	6
	6	9	9	9	15	18	33
High school	22	11	28	36	50	47	97
Elementary school	3	0	0	0	3	0	3
	25	11	28	36	53	47	100
Boarding school	0	0	0	2	0	2	2
Private school	0	1	0	1	0	2	2
	0	1	0	3	0	4	4
Going to school	10	8	8	9	18	17	35
	10	8	8	9	18	17	35
Studying	3	2	0	0	3	2	5
Studying at home	0	0	0	5	0	5	5
	3	2	0	5	3	7	10

PROFESSIONS

	Manhattan and Bronx		Brooklyn and Richmond		Total		Totals
	B.	S.	B.	S.	B.	S.	
Professional							
Architect	2	0	2	0	4	0	4
Civil engineer	2	0	0	0	2	0	2
Dentist	1	0	1	0	2	0	2
Doctor	2	0	2	0	4	0	4
Lawyer	6	0	1	0	7	0	7
Minister	1	0	0	0	1	0	1
School teacher	3	12	0	18	3	30	33
	17	12	6	18	23	30	53
Semi-professional							
Actor—Actress	2	0	2	1	4	1	5
Music teacher	0	0	0	4	0	4	4
Newspaper artist	1	0	0	0	1	0	1
Pianist	0	1	1	0	1	1	2
Singer	0	0	0	1	0	1	1
Violin teacher	0	0	0	1	0	1	1
	3	1	3	7	6	8	14
Singer	0	0	0	1	0	1	1
Surveyor	0	0	1	0	1	0	1
	0	0	1	1	1	1	2
Government service	1	0	0	0	1	0	1
Board of health	0	0	1	0	1	0	1
Dep't ferries	1	0	0	0	1	0	1
Firemen	3	0	1	0	4	0	4
Postoffice	3	0	1	0	4	0	4
Police	3	0	0	0	3	0	3
Tenement house inspector	1	0	0	0	1	0	1
U. S. Army	*1	0	2	0	3	0	3
U. S. Navy	0	0	1	0	1	0	1
	13	0	6	0	19	0	19

* Officer.

CLERICAL POSITIONS

	Manhattan and Bronx		Brooklyn and Richmond		Total		Totals
	B.	S.	B.	S.	B.	S.	
Bookkeeper	12	8	11	7	23	15	38
Broker's office	1	0	4	0	5	0	5
Cashier	1	1	3	2	4	3	7
Clerk	2	2	9	1	11	3	14
Bank	0	0	6	0	6	0	6
File	0	0	2	0	2	0	2
Insurance	0	0	2	0	2	0	2
Lawyer's	1	0	1	0	2	0	2
Postoffice	2	0	0	0	2	0	2
Shipping	2	0	0	0	2	0	2
Stock	0	0	2	0	2	0	2
	21	11	40	10	61	21	82
Office boy	14	0	3	0	17	0	17
Dentist's office	0	0	1	0	1	0	1
Real estate office	1	0	0	0	1	0	1
Publisher's office	1	0	0	0	1	0	1
Works in an office	3	0	6	0	9	0	9
	19	0	10	0	29	0	29
Private secretary	0	3	1	0	1	3	4
Stenographer and typewriter	9	40	6	40	15	80	95
	9	43	7	40	16	83	99
Telegraph operator	0	1	0	6	0	7	7
Telephone operator	0	3	0	0	0	3	3
	0	4	0	6	0	10	10
Tabulator	0	0	0	1	0	1	1
	0	0	0	1	0	1	1

TRADES

	Manhattan and Bronx		Brooklyn and Richmond		Total		Totals
	B.	S.	B.	S.	B.	S.	
Barber	2	0	0	0	2	0	2
Bricklayer	1	0	2	0	3	0	3
Carpenter	1	0	1	0	2	0	2
Contractor	1	0	3	0	4	0	4
Cutter	1	0	1	0	2	0	2
Designer	1	0	0	0	1	0	1
Diamond cutter	0	0	1	0	1	0	1
Draughtsman	1	0	3	0	4	0	4
Dressmaker	0	16	0	4	0	20	20
Electrician	6	0	6	0	12	0	12
Electrotyper	0	0	2	0	2	0	2
Engraver	0	0	1	0	1	0	1
Engraver, photo	0	0	1	0	1	0	1
Engraver, wax	1	0	0	0	1	0	1
Engineer	0	0	1	0	1	0	1
Harness maker	1	0	0	0	1	0	1
Housekeeper	0	0	0	1	0	1	1
Lithographer	1	0	0	0	1	0	1
Machinist	0	0	5	0	5	0	5
Mechanic	2	0	4	0	6	0	6
Milliner	0	4	0	7	0	11	11
Mosaic worker	1	0	0	0	1	0	1
Painter	1	0	1	0	2	0	2
Pastry cook	1	0	0	0	1	0	1
Plumber	3	0	8	0	11	0	11
Printer	2	0	2	0	4	0	4
Steamfitter	1	0	0	0	1	0	1
Steeplejack	1	0	0	0	1	0	1
Stonecutter	1	0	0	0	1	0	1
Tailor	0	0	1	0	1	0	1
	30	20	43	12	73	32	105

SALESMEN AND SALESWOMEN

	Manhattan and Bronx		Brooklyn and Richmond		Total		Totals
	B.	S.	B.	S.	B.	S.	
Baker	1	0	0	0	1	0	1
Butcher	1	0	0	0	1	0	1
Buyer	0	0	1	0	1	0	1
Coal	0	0	2	0	2	0	2
Coffee	0	0	1	0	1	0	1
Commission merchant	1	0	2	0	3	0	3
Clothing business	0	0	2	0	2	0	2
Dairy	1	0	0	0	1	0	1
Feed trade	0	0	2	0	2	0	2
Grocery store	0	0	6	1	6	1	7
Hardware store	1	0	0	0	1	0	1
Jewelry	1	0	0	0	1	0	1
Jeweler	0	0	4	0	4	0	4
Lace business	2	0	0	0	2	0	2
Lace saleslady	0	1	0	0	0	1	1
Linen business	1	0	0	0	1	0	1
Liquor store	1	0	0	0	1	0	1
Merchant	0	0	1	0	1	0	1
Merchant tailor	1	0	0	0	1	0	1
Notion house	1	0	0	0	1	0	1
Salesman	9	3	4	5	13	8	21
Silk business	1	0	0	0	1	0	1
Silver business	0	0	1	0	1	0	1
Store (cloaks) (mfg.?)	7	4	0	0	7	4	11
Traveling salesman	3	0	0	0	3	0	3
Wholesale	1	0	0	0	1	0	1
Window trimmer	1	0	0	0	1	0	1
Woolen store	2	0	0	0	2	0	2
	36	8	26	6	62	14	76

FACTORY WORK

	Manhattan and Bronx		Brooklyn and Richmond		Total		Totals
	B.	S.	B.	S.	B.	S.	
Blankbook maker	0	1	0	0	0	1	1
Bookbinder	1	0	0	1	1	1	2
Pamphlet folder	0	1	0	0	0	1	1
Publishing house	0	1	0	0	0	1	1
Envelope maker	0	1	0	0	0	1	1
Foreman (or forelady)	2	0	4	3	6	3	9
Operator	1	0	0	0	1	0	1
	4	4	4	4	8	8	16
Bank note business	0	0	0	2	0	2	2
Burnt leather	1	1	0	0	1	1	2
Cloak sorter	0	0	0	1	0	1	1
Collars and cuffs	0	0	0	1	0	1	1
Embroiderer	0	1	1	0	1	1	2
Examiner	1	0	0	0	1	0	1
Factory work	0	1	0	1	0	2	2
Lace runner	0	0	0	1	0	1	1
Marker and sorter	0	1	0	0	0	1	1
Neckwear	0	1	1	0	1	1	2
Ostrich feathers	0	1	0	0	1	0	1
Packer	0	0	1	0	0	1	1
Patterns	1	0	0	0	1	0	1
Ribbons	0	2	0	0	0	2	2
Ruchings	0	1	0	0	0	1	1
Shoes	0	0	0	1	0	1	1
Standard oil works	0	0	1	0	1	0	1
Trimmings	0	1	0	0	0	1	1
Waists, worker on	0	2	0	1	0	3	3
Waists, examiner on	0	2	0	0	0	2	2
	3	14	4	8	7	22	29

MISCELLANEOUS

	MAN-HATTAN AND BRONX		BROOK-LYN AND RICHMOND		TOTAL		TOTALS
	B.	S.	B.	S.	B.	S.	
Agriculture	1	0	0	0	1	0	1
Confidential	0	0	1	0	1	0	1
Detective	0	0	0	1	0	1	1
Elevator man	0	0	1	0	1	0	1
Gas business	1	0	0	0	1	0	1
Gymnasium	0	0	1	0	1	0	1
Janitor	1	0	0	0	1	0	1
Laborer	0	0	1	0	1	0	1
Prize fighter	0	0	1	0	1	0	1
Ranchman	0	0	1	0	1	0	1
Traveling for health	0	0	2	0	2	0	2
	3	0	8	1	11	1	12
Agent	1	0	2	0	3	0	3
Banker	1	0	0	0	1	0	1
Broker	1	0	3	0	4	0	4
Claim agent	1	0	0	0	1	0	1
Collector	1	0	0	0	1	0	1
Insurance placer	1	0	0	0	1	0	1
Life insurance	0	0	1	0	1	0	1
Real estate	4	0	4	0	8	0	8
	10	0	10	0	20	0	20

TRANSPORTATION

	Manhattan and Bronx		Brooklyn and Richmond		Total		Totals
	B.	S.	B.	S.	B.	S.	
Cab driver	1	0	0	0	1	0	1
Captain (boat?)	0	0	1	0	1	0	1
Driver	1	0	1	0	2	0	2
Express agent	0	0	2	0	2	0	2
Messenger	1	0	0	0	1	0	1
Railroad agent	0	0	1	0	1	0	1
Railroad station	1	0	0	0	1	0	1
Railroad work	1	0	0	0	1	0	1
Sailor	0	0	1	0	1	0	1
Seaman	0	0	1	0	1	0	1
Transfer agent	0	0	1	0	1	0	1
Telephone line	0	0	1	0	1	0	1
Trainman	0	0	1	0	1	0	1
Truck driver	1	0	0	0	1	0	1
Tunnel inspector	0	0	1	0	1	0	1
	6	0	11	0	17	0	17

WORKING (UNCLASSIFIED)

	Manhattan and Bronx		Brooklyn and Richmond		Total		Totals
	B.	S.	B.	S.	B.	S.	
“Business”	20	8	30	11	50	19	69
“Working”	23	26	26	18	49	44	93
‘Working at home”	0	0	2	0	2	0	2
	43	34	58	29	101	63	164
Blank	39	27	22	11	61	38	99
	39	27	22	11	61	38	99

NOT WORKING

	MAN-HATTAN AND BRONX		BROOK-LYN AND RICHMOND		TOTAL		TOTALS
	B.	S.	B.	S.	B.	S.	
At home	4	42	7	52	11	94	105
"Doing nothing"	2	8	5	0	7	8	15
"Married"	11	37	6	27	17	64	81
Sick at home	1	0	0	0	1	0	1
	18	87	18	79	36	166	202

Having finished the perusal of our tables we are ready to repeat our question—" What should the high school do for the pupils who drop out to take positions such as in our lists? "

Some will of course claim that our courses just as they stand will prepare our boys and girls for these varied occupations as well as any other lessons could do. Others will claim that after all it is the " incidental " instruction that comes from daily association with the cultured and earnest teachers that is of most importance. Some will urge that the inter-association in work and play of the pupils among themselves will in itself broaden and deepen their mental lives, while still others will maintain that pupils who must ultimately leave for unskilled occupations should not be catered to at all, but rather forced out as soon as possible.

However, all, it seems, must agree that we should not endeavor to keep any pupil in school beyond the point where the school work and school life is surely of benefit to that pupil. To determine that point is worthy of serious study. We may safely say that this point is not yet determined, and yet we may also suggest that this may be because too little attention has been given to its determination. It must be recognized that there are those to-day who will advance arguments to show that for some pupils much high school work means time worse than wasted in that it really unfits the pupil for the work he must of necessity soon take up.

Surely it would be a far-sighted man who would attempt to select in advance all the pupils who soon must leave, but it would take no such foresight to provide for the pupils who never expect to stay for more than a year or two.

For these pupils there is need for a general short-course such as has been previously suggested and will again be urged—a course unified, complete, attractive and truly illuminating which will be undoubtedly beneficial to the many who soon will leave, rather than to the few who will stay to complete their high school course.

SECTION VIII

PUPILS' VALUATION OF A HIGH SCHOOL EDUCATION

Having secured from each registered pupil some statement regarding the work he or she was expecting to undertake as a means of making a living (or as in the case of many, a statement of present indecision), the next step was to find out what the pupil thought of the value of a high school education as a preparation for that work, or for his or her general well-being.

The question asked was "Do you consider a high school education necessary for the realization of your plans for the future?"

Our first tabulation of this answer will show the totals for the entire number studied.

"Yes" (high school education is necessary)	470
Doubtful	201
"No" (high school education is not necessary)	331
Total	1,002

The striking feature of these replies is evident at the first glance. Slightly less than half (47 per cent) of the recorded pupils consider a high school education an essential to their careers. One-fifth are doubtful as to whether or not they need a high school education. One-third consider a high school education positively unnecessary.

These figures argue well for a speedy elimination of nearly fifty per cent of the total registration. In other words, a majority (53 per cent) of the entering pupils enter the high school either with a decided prejudice against its usefulness for themselves, or else with a reasonable doubt as to the value to them of a high school diploma.

A complete tabulation of these answers by schools and sexes is given below.

"Do you consider a high school education necessary for the realization of your plans for the future?"

School	Sex	Total	Yes	Doubtful	No
1	Boys	37	24	3	10
	Girls	80	37	9	34
2	Boys	58	34	11	13
	Girls	62	25	11	26
3	Girls	90	43	11	36
4	Boys	33	28	3	2
	Girls	53	18	21	14
5	Boys	34	16	15	3
	Girls	24	7	11	6
6	Girls	121	38	41	42
7	Boys	62	43	8	11
8	Boys	59	21	8	30
9	Boys	61	37	9	15
10	Girls	127	57	22	48
11	Boys	38	12	9	17
	Girls	63	30	9	24
	Total Boys	382	215	66	101
	" Girls	620	255	135	230
	Grand total	1,002	470	201	331

LENGTH OF STAY

Before discussing further this question of the pupils' valuation of a high school course it would be well to consider the answers to the question concerning the purpose of the pupil regarding graduation or the pupil's probable length of stay.

These are given in the table that follows on page 71.

School	Sex	Total	Yes	Doubtful	No
1	Boys	37	29	4	4
	Girls	80	57	13	10
2	Boys	58	31	22	5
	Girls	62	26	18	18
3	Girls	90	59	3	28
4	Boys	33	28	1	4
	Girls	53	26	21	6
5	Boys	34	14	14	6
	Girls	24	10	10	4
6	Girls	121	49	44	28
7	Boys	62	33	21	8
8	Boys	59	16	33	10
9	Boys	61	45	7	9
10	Girls	127	58	54	15
11	Boys	38	11	13	14
	Girls	63	31	16	16
	Total Boys	382	207	115	60
	" Girls	620	316	179	125
	Grand total	1,002	523	294	185

The two tables already given when arranged to show percentages are as follows:

BOYS

"Is a high school education necessary for your plans for the future?"

Yes	No	Doubtful	Total
56%	27%	17%	100%

"Do you intend to complete your high school course?"

Yes	No	Doubtful	Total
54%	16%	30%	100%

GIRLS

"Is a high school education necessary for your plans for the future?"

Yes	No	Doubtful	Total
41%	37%	22%	100%

"Do you intend to complete your high school course?"

Yes	No	Doubtful	Total
51%	20%	29%	100%

BOYS AND GIRLS

"High school education necessary?"

YES	NO	DOUBTFUL	TOTAL
47%	33%	20%	100%

"Do you intend to complete your high school course?"

YES	NO	DOUBTFUL	TOTAL
52%	19%	29%	100%

An examination of the answers shows that nearly one-fifth (19 per cent) do not intend to graduate. Over one-fourth more (29 per cent) enter the high school with no set determination to complete their course. There is lacking, then, in almost exactly one-half of the pupils, a definite intent to stay the full course. Such pupils are not apt to be over-serious about their work or to deny themselves any social pleasure that would interfere with their studies. They come, impelled by curiosity, perhaps, or because their parents " wish to keep them in school a little longer." It is not to be wondered at if difficult lessons early discourage many of the experimenters, particularly when the contrast is so marked between their previous exalted position as members of the " graduating class " and their present position in the " entering class."

Possibly, too, there may be found here some explanation of the continuously repeated complaint of nearly all high school teachers that the entering classes are so lacking in ability. It has been shown that some 66 per cent are boys and girls of considerable elementary school ability, and nearly 30 per cent are children considered very successful by teachers that knew them. The explanation of this contrast between the estimates of the high school teachers and those of the elementary school teachers may be found in the change in the pupil's attitude toward his or her work. In elementary schools, the compulsory attendance, the interest of teachers known for several years, the attitude of employers in preferring graduates to non-graduates, the nearness of the goal and personal pride in graduation, the pressure of parents insisting that their children shall have a " common school education,"—all these combine to make the elementary pupil's work unquestioning and serious, to emphasize personal effort, and to increase the necessity for the study of home lessons.

But now the graduate is freed from nearly all of these impelling motives. Those parents who are better educated may still insist upon careful study; but in very many cases the pupil now becomes his own master; he is free to decide for himself for better or for worse. Moreover his attitude toward his work has changed completely. He studies either because he has some definite work to prepare for, or because he becomes interested in his new subjects of study. His attitude is no longer one of unquestioned obedience to authority. Each day he may ask himself the question, "What is this study good for?" "Why should I have to study that?"

With the strange contortions of a new language, the dry formalities of a new mathematical system, the analytical study of an English masterpiece which is beyond him, and the examination of some strange bugs and flowers—in most or all of these, his new studies, he lacks interest. He cannot satisfactorily answer the question, "What is that study good for?" a question he never stopped to think about until now.

Yet here is the pupil "trying" high school and in half the cases assuming a critical or suspicious attitude toward his work. Little wonder, then, that the high school teacher with high ideals of scholastic efficiency, greets too often with disdain a class of little children who in spite of their ignorance and immaturity sit in judgment upon his favorite study. The conditions certainly are not favorable for the retention in the high school of a large number of each entering class.

Borough Differences

In the answers as to the valuation of a high school course and the necessity for completing it, pupils in Manhattan and the Bronx agree quite closely in their answers and somewhat disagree with the decisions made by Brooklyn and Richmond pupils. The table which is hereafter given will show that a larger percentage of both the boys and girls of Brooklyn feel the necessity of a high school course and intend to complete one, than is the case in Manhattan and the Bronx.

So far as the desirability of, or the necessity for a high school education is concerned, the girls of the four boroughs do not vary greatly; but when it comes to a question of their plans for actually staying, Brooklyn leads all the other boroughs. This may possibly be because more Brooklyn girls live in homes their parents own and where they expect to live for some years to come; possibly too because a much greater percentage of Brooklyn girls expect to become teachers as contrasted with the larger registration in Manhattan for technical pursuits.

TABULATION BY BOROUGHS AND SEXES

	Manhattan and Bronx		Brooklyn and Richmond	
	Boys	Girls	Boys	Girls
Necessary	113	125	102	130
Doubtful	34	72	32	63
Not necessary	73	114	28	116
Totals	220	311	162	309
Stay full course	105	138	102	178
Doubtful	74	114	41	65
Will not stay	41	59	19	66
Totals	220	311	162	309

About 60 per cent of the Brooklyn girls intend to finish, whereas only 47 per cent so expressed their intention in Manhattan and the Bronx and less than 42 per cent in Richmond.

So far then as our figures show the real condition of affairs, the Brooklyn high schools apparently contain a much greater number of pupils who are taking their high school course seriously and who intend to get from the high school whatever it may have for them. An allotment of city funds for buildings, equipment, and maintenance based upon the intent of the pupils could not fail to provide for Brooklyn girls much more liberally than for those in any of the other boroughs studied.

Length of Stay and First Language

Upon studying the expression of opinion on the part of the pupils as to their probable length of stay in high school, one very important connection seems to appear between the language first selected by the pupil and the answer to the question "Do you intend to stay in high school until you graduate?"

High school principals throughout the city have frequently remarked the connection that seems to exist between the study of Latin and the staying power of a pupil. For example, in a high school organizing at the beginning of a certain year ten entering classes (five Latin and five German) there would be left at the end of two years usually not over four classes, three of which as a rule would be Latin classes.

With this condition repeated year after year it would seem to be fairly evident that there must be some connection between the study of Latin and the determination of a pupil to remain in school. Even further than this, more than one principal has been influenced by this relation to advise and urge pupils to elect Latin, believing that there was something not quite appreciated or understood but still very effective about the study of Latin which either made it easier for the pupils electing Latin to stay in school or harder for them to give up school entirely if they thought of dropping out.

To illustrate the relation which is shown in this investigation between the language elected and the length of stay proposed it is not necessary to take the figures for the entire city, but a Latin and a German class selected from any one school at random will not vary greatly from the conditions existing in the other similar high schools. Let us from a certain girls' school take one hundred pupils equally divided between those electing Latin and those electing German. A tabulated statement of the relations between the language elected and the pupil's attitude toward his or her high school life and work, is attempted below.

First let us note the answers to the question "Do you consider a high school education necessary?"

	LATIN	GERMAN	TOTAL
"Yes"	36	14	50
"Doubtful"	8	5	13
"No"	6	31	37
Totals	50	50	100

In this school 72 per cent of the Latin pupils regard a high school education as necessary for their future plans or welfare. On the other hand, 62 per cent of the German pupils are positively decided that the high school course is not necessary for their welfare or ambitions. It is now possible for us to forecast the probable eliminations by languages even without the following table which however should be closely examined. From the same 100 pupils answers were obtained to the question " Do you intend to stay in high school until you graduate?" The answers are given below:

	LATIN	GERMAN	TOTAL
"Yes"	31	18	49
"Doubtful"	19	22	41
"No"	0	10	10
Totals	50	50	100

As the table shows, in this school some 64 per cent of the German pupils are either doubtful about the value for them of a high school course or else already decided against it, while on the other hand, only 36 per cent are really determined to graduate.

One would hardly be rash enough to say that one week of Latin or one week of German (for these answers were written in the first week of the new term) was sufficient to make the marked difference between the intentions of Latin pupils and German pupils. The fact should, however, be perfectly clear that the great majority of pupils who come to high school with the purpose of graduating elect Latin, while the great majority of those who do not intend to stay long in school elect German. Most previous explanations have regarded the effect as the cause and decided that studying Latin made a pupil determine to stay in school whereas it would appear that it is a pupil's determination to stay, that makes him or her elect Latin.

Before finally leaving this interesting if not astonishing subject of the relation between language and length of stay let us finally take up the question from the standpoint of the intentions of all the entering pupils and then tabulate our results. From the 523 registered pupils who said positively that they intended to stay for the full high school course, one hundred pupils were taken at random from the school where both Latin and German were offered as electives. A tally of this hundred gave 69 electing Latin and 31 electing German, just such a ratio as we should expect from our previous examination of the conditions.

Let us now take the opposing group of pupils and examine the election of languages made by the one hundred and eighty-five pupils who expressly stated that they did not intend to stay in high school until they graduated. Many of these pupils are found in schools where no Latin is offered. To a certain extent then these pupils may be regarded as electing German or avoiding the study of Latin, but to avoid any doubt we confine our figures to schools where both Latin and German are offered as electives and schools in which the Latin and German are represented by approximately equal numbers among our registered pupils. In order to find over sixty such pupils determined not to stay in school for the full course it was necessary to include six schools. These schools gave a total of sixty-one such pupils. An examination of the pupils' choice of language showed that 52, or approximately 85 per cent, elected German, while only 9, or 15 per cent of those not intending to finish, elected Latin.

Enough figures have been given to show that it is the *selecting* power of Latin rather than its effect upon the pupils that makes it the elected language of the more determined student. It is not so much that Latin makes a boy or girl able or determined to stay in school as it is that the very great majority of those who are more determined to stay (and probably more able as well) select Latin as their first language.

In order to make a complete comparison between the staying power of the Latin and German students, it would be necessary for us to take in all the high schools the total number of German pupils *who intended to graduate* and to compare them with the total number of Latin pupils who similarly intended to graduate. These two groups could then be followed for four years and the number finishing the course in each language would give us a more just basis for comparing the retaining or eliminating power either of the two languages or of their respective teachers.

BEARING ON THE INTRODUCTORY COURSES

In discussing the value of a high school education the figures printed may lead us to believe that a little more time can well be spent at the opening of a high school course in explaining the practical and the theoretical value of each study taken up.

With the disciplinary theory of education decidedly on the wane there will be found much difficulty in rationally establishing the claim of many old-time courses to the place they now hold in the curriculum. If as is now generally held by all scientific students of education, we have no "faculties" which trained in *any* field of study may be applied equally well in *all* fields, then some subjects, whose great and almost only claim is "training the faculties of memory and reasoning" for use in *other* lines, will have to give way.

Perhaps, after all, these unlearned and unabashed children who decide that the high school studies are of no use to them, may be nearer the truth than many of us who are unreasoning servants of tradition and habit. So many subjects have kept their place in the high school curriculum because they were once put there for college preparation that we often have for the great majority of the pupils of to-day a notoriously ill-balanced course. Theoretically the high school was once a college preparatory institution. To-day in New York City less than two per cent of the entering pupils ever reach the freshman class in college. Undoubtedly from this two per cent will come the highest type of leaders, but to disregard the ninety-eight per cent in order to develop the two per cent seems a tremendous economic waste.

For the most part then, at present, the high school curriculum, while open to the many, is still planned largely to be of value only to the extreme few. So we have, at least in the classical high school, an aristocratic institution of a very pronounced type under the guise of one supposed to be popular and democratic.

SECTION IX

RENTALS

Our study of the rents paid by the parents of the high school pupils, incomplete as it is, yet furnishes some of the most surprising information which the whole investigation has yielded. Only 420 homes were visited out of a thousand so marked for investigation. Lack of time and money combined to prevent a complete canvass.

The method followed in the majority of cases was to visit the house, explain that the investigator was making a study of rents, and ask the actual rents paid by the tenant. In most cases the janitor gave the information willingly. In only a few cases was it necessary to pose as a prospective tenant or to visit the renting agent. If any errors resulted from this method it will probably be that in some cases the figures are too high as the " rent asked," as it is known in New York, often exceeds the " rent paid " by actual lessees.

In our selection of homes to be visited certain localities were selected such as, in Manhattan the middle and upper West Side, the lower East Side, Harlem, the lower West Side. In Brooklyn, Williamsburg, Flatbush, and the Park Slope were selected. Home addresses were tabulated by localities and wherever a large number of addresses were found to come within an area of ten blocks or so square the rents were looked up.

It was practically impossible to visit scattered homes in the Bronx, Coney Island section, or Staten Island or in sections where a half day's work would even at the expense of many carfares give less than a dozen rentals as the result.

The rents were originally recorded in two different numbers, the lowest and the highest asked in the tenement, flat or apartment house. These two figures were then arranged and the rent recorded in our tables according to the multiple of five which it most nearly approached. For example rents from

$10 to $18 would average $14, and appear in our tables as $15. Rents $14 to $20 would average $17 and also be recorded as $15. Thus it will be seen that extreme accuracy is not pretended but merely a trustworthy approximation of the money paid each month by the families under observation.

Rent as an indication of a family's financial condition must also take into consideration several points we did not have time to consider. For example, a family of three paying twenty dollars a month for three rooms may represent an entirely different financial condition from that which is shown by a family of six paying twenty dollars for three rooms. It is not only the rent itself, but the number of rooms and the number in the family that must be considered.

Any scientifically accurate study of rents as an indication of a family's financial responsibility must include among other things:

1. Rent actually paid.
2. Number of rooms.
3. Number of self-supporting (rent-paying) grown children living at home.
4. Number of children in school.
5. Number of "roomers" who sublet rooms or beds.

However, with all these data omitted, we can still trust our figures as maximum rentals, very confidently, because all the five items mentioned above except No. 4 tend to lower the net rent and to enable a family to live in a tenement or flat where *more* rent is charged than the same family would be able to afford on the basis of the father's wages alone.

Our figures, especially those recorded as below $20, may then be considered as erring only on the side of being too high, rarely if ever too low. For our purposes they may be accepted as fairly accurate *maximum* figures rather than true averages for the homes visited.

From our tables it can be seen at a glance that a monthly rental of approximately $15 is the most common one for our recorded pupils. That this is a very low rental for New York City will be generally admitted without argument. Steam-heated apartments with water and elevator service, average rather above ten dollars a room. The same apartments without elevator service, but in fairly good neighborhoods, may be secured at approximately a fourth less. However, for a non-elevator apartment of parlor, dining-room, kitchen, two bedrooms and bath from $30 to $35 is not exorbitant, in a moderately good residence section. The same class of apartment with elevator service in the better sections will bring upward of $50. However, it must be remembered that as one moves from the center of population

MONTHLY RENTAL OF PUPILS' HOMES

School...	1	2	3	4	5	6	7	8	9	10	11	Totals
Pupils...	22	34	32	76	0	30	58	31	50	83	4	420
MONTHLY RENTAL												
$10.....	3	5	0	22	..	2	1	..	..	..	..	33
15.....	5	11	7	39	..	16	30	13	11	20	2	154
20.....	4	4	8	6	..	2	6	3	..	1	..	34
25.....	2	2	5	8	..	6	12	7	8	25	1	76
30.....	3	5	6	..	..	..	..	..	1	1	..	16
35.....	2	3	2	..	..	1	4	..	7	13	1	33
40.....	..	..	..	..	..	..	1	..	2	2	..	5
45.....	1	1	1	..	..	2	2	3	6	6	..	22
50.....	..	1	..	1	..	..	..	1	..	..	..	3
55.....	..	..	2	..	..	..	..	1	1	2	..	6
60.....	..	1	..	..	..	..	..	..	3	1	..	5
65.....	1	1	..	..	..	..	..	..	2	..	..	4
70.....	..	..	..	..	..	..	..	..	..	..	..	0
75.....	..	..	..	..	..	..	..	..	1	1	..	2
80.....	1	..	..	..	..	..	..	..	..	..	..	1
85.....	..	..	..	..	..	..	..	..	2	1	..	3
90.....	..	..	..	..	..	..	..	2	1	2	..	5
95.....	..	..	..	..	..	..	..	..	..	..	..	0
100.....	..	..	..	..	..	..	1	..	2	5	..	8
110.....	..	..	..	..	..	..	1	..	2	2	..	5
120.....	..	..	..	..	..	1	..	1	..	..	..	2
130.....	..	..	..	..	..	..	..	..	..	..	..	0
140.....	..	..	1	..	..	..	..	..	..	1	..	2
150.....	..	..	..	..	..	..	..	..	1	..	..	1
												420

[NOTE.—Before a discussion of rentals is begun it might be said that a comparison of the rentals with the language first elected failed to show any decided differences. However the rents above $45 are slightly more common in classes where Latin is the first language. On the other hand, the technical courses, while they show but a little more in proportion among the very lowest rents, still do not show the higher rents (with one exception) at all.

The commercial courses, though they do not prepare for college, contain relatively as many pupils from apparently well-to-do homes as one finds in the straight preparatory courses.]

in Manhattan, the rentals for similar homes decrease so that the Brooklyn rentals of School No. 4 which are centered at $15 possibly would represent a range of $15 to $25, for similar homes in Manhattan. Nevertheless one can with difficulty secure anywhere a tenement flat for less than $10 a month even for two rooms only. Our $15 group represents almost the lowest monthly rate compatible with decency. It may represent two, three, or rarely four rooms in a crowded tenement house section. The most rooms at that price will usually be found in the least attractive neighborhoods.

This whole investigation of rentals shows a rather surprising condition. If rental is taken as a criterion we find a class of pupils, whose parents are struggling for the bare necessities of life, pursuing at high school for the greater part the remnants of an aristocratic secondary education to which are added many subjects chiefly dictated by the colleges or modern culture. We are preparing for a college to which few will ever go and for a life of ease and refinement which few will ever enjoy, the greater part of our thirty thousand pupils. Where the necessities demand a short course of two years, we offer one twice as long. Where the necessities call for a better appreciation of modern social conditions, we offer German or Latin grammar. Where the necessities indicate the advantage of turning boys and girls into some position where they can command respectable wages, we give them Algebra or "The Ancient Mariner."

It is true that from one point of view it may be regarded as a grand struggle upward. From boys whose parents are struggling with poverty will come successful merchants, lawyers, doctors, college professors, one in a thousand perhaps. Leaders are being selected though perhaps by a too trying process of deprivation. The shame of it all is that to advance the one boy in a hundred or the one in a thousand, we may be leaving the 99 or the 999 to struggle hopelessly with an education entirely unsuited to their own individual needs.

From the girls whose parents are working hard to keep the family fed and clothed will come many successful teachers who will in turn repay all sacrifices with later support. More however will enter upon married life, without any further appreciation of household economics than that gained by observation of the not too certain expenditures in their own home. Music which might have brightened the home was put aside for Cæsar's Commentaries, and sewing had to give way to home work in Physics. The mother of the household cooks, washes, sews, and sweeps, slaving, day in and day out, that her daughter may learn by rote a thousand things she can never remember, and never will try to remember unless she becomes a teacher and learns them all anew.

If this investigation does no more than to open our eyes to the home conditions of our pupils it will have still made a genuine contribution to the cause of education in New York City. Of course this mere fact that these boys and girls are poor does not prove that they may not need precisely the old-style curriculum, but in consideration of the fact that three-quarters of them abandon it, one surely has a right to question its fitness. In any case the rental report stands as a testimony to the democratic nature of the student body of New York's high schools, and to the parental devotion and sacrifice by which they are supported.

A New York high school is a people's college in its student body and should be in its course of study.

PART III

A STUDY OF ELIMINATION

SECTION I

ELIMINATIONS

Introduction to Discussions

The mass of material which we have at our disposal to review in our attempt to find some of the factors in elimination is too complex for complete presentation. The card (page 14) called for information on twelve or more points giving over 12,000, separate measurements. In connection with the teachers' estimates of the pupils' ability, industry, and results we have tabulated and combined nearly 10,000 measurements. The progress of the pupil through school has involved the study of upward of 10,000 class marks. The checking up of promotions and discharges from term to term has necessitated about 8,000 additional measurements. In all 40,000 measurements would be a conservative estimate of the number of individual records that confront us at the beginning of our study.

To handle and develop thoroughly all these measurements and to show all their relations at this time, is, of course, impossible. But it is hoped that some investigators may see fit to do this in the future. The entire information concerning each individual, together with all the compilations made, but not here reported, is on file with Professor E. L. Thorndike of the Department of Educational Psychology, Teachers College, Columbia University.

So far as our discussions are concerned we shall endeavor to make them brief and to the point. So far as we draw any conclusions they must be tentative, but the material from which conclusions are drawn will be in the great majority of instances presented. Anyone is at liberty to study the original records and to draw from them such conclusions as seem logical whether or not they agree with those hereinafter published.

All of our original information is tabulated by individuals, by classes, by sexes and by schools. The first plan of printing involved the publication of all data by schools but this alone would multiply by eleven all the tables we here present. Furthermore, there might appear in parallel columns suggested comparisons capable of misunderstanding and productive of no good result.

However much local students of education may be interested in individual high schools, their interest in the high school population at large is much greater, while to those outside of the city the comparison of individual schools is of no interest. By embracing all types of schools and all courses offered, we have made certain of unbiased data. We are fairly sure we have an accurate index of the situation as a whole.

The valid objection will be raised that the combination of classical, commercial, and technical pupils in one group, will fail to show the distinctive advantages of any one type of course or of school. This objection is of course admitted, but we must answer that this comparison may properly be left for a special study at some later time. The information we need for this study is at hand, but is, for the present, held in reserve.

So too with the separate tabulation of the sexes: not all such tabulations are shown, though such tabulations were always previously made. Where prominent sex differences appear, boys and girls are separately tabulated; but, where differences are slight or peculiar to only one group, the entire table by sexes is not presented but only the total of boys and girls combined.

Where percentages are shown they are almost entirely limited to whole numbers; the decimals of a per cent are not shown but combined in the customary way, one-half or over being considered as one per cent. It is hoped that in this way the reader will be saved unnecessary fatigue in comparing percentages and since no hair-splitting comparisons are attempted, nothing will be lost by close approximations rather than mathematically complete decimal percentages.

It should be constantly remembered that in all our conclusions we are thinking of the one thousand registered pupils with whom we are directly concerned. We do not attempt to make generalizations for the entire high school population but leave that wholly to the judgment of the individual reader.

So far as our registered pupils are concerned, our conclusions will be found to be carefully considered and conservatively stated. It is for the student of local conditions to determine how far our cross section of the high school population is a true indication of the high school situation at large.

ELIMINATION GROUPS

Explanation of Totals in Groups

Because of proved removal from the city or because the pupils left before they could be properly estimated by their high school teachers, a certain number of the 382 boys and 620 girls who were true entering pupils still could not be considered when we came to the question of eliminations. During the first half-year of this investigation many pupils were discharged because they had moved from the address from which they registered when entering. Out of the 139 pupils who left *during* their first term, 7 boys and 10 girls were actually found to have moved from the city, a total of 12 per cent of those who left during the first five months. However, by no means all of those reported as moving from the city or "not found" at their original address actually moved from the neighborhood as careful following up discovered. Not infrequently a family would move but a few blocks, yet leave no word at their original address as to where they had gone. Such families were traced through friends of the pupils who left. When it could be established beyond a reasonable doubt that a family had moved from the city the pupils so discharged from the high school were not counted as eliminations but subtracted from the total of the group.

However, as the investigation proceeded it became harder and harder to find the time to test removals as to their genuineness so that finally, except in proved cases, pupils (in an ever decreasing percentage), who were reported as moved, were not taken from the recorded groups but tabulated with the rest as eliminated. To a certain extent then, each eliminated group may contain a few (from 4 to 6) whose genuine elimination is in doubt. These pupils may have, or may not have, been "eliminated" in the true sense of the word. However the percentage of those in doubt is always very small, rarely exceeding five in one hundred, and so while not forgotten may be considered as not reflecting any great degree of doubt upon the general conclusions drawn from the study of a group.

Explanation of Groups

Our entering pupils were 382 boys and 620 girls, a total of 1,002. The pupils whom we shall consider in our study of elimination are 366 boys and 592 girls, a total of 958.

We have divided these 958 pupils for purposes of discussion into nine groups. The first seven groups are composed of the eliminated pupils arranged according to their dates of discharge from high school. The eighth group is made up of the pupils who graduated by or before the close of their fourth high school year. The ninth group is made up of the retarded or left-over pupils who were still on the rolls at the beginning of their fifth high school year.

Since in our tables it will be impossible to repeat a description of the arrangement of each group, it is very important that the reader remember the group name for each one of the following groups.

Before we even begin to discuss the groupings of our pupils it may be well to caution the reader against confusing with the pupil who *stays,* let us say, one year, the pupil who has *completed* one year of the high school course. In all the discussion which immediately follows, we are concerned only with the length of stay. So it may be that several pupils who have completed two years of their stay in high school may have completed but one year of the high school course. With this distinction clearly in mind, we will proceed to a very brief statement of the groups.

Group I. Pupils who were discharged during their first term in high school, i.e., during the first half of their first high school year. These pupils were discharged between March 1, 1906 and June 30, 1906.

Group II. Pupils who stayed in school for their first term but who did not return to school in September, 1906 to do any school work. They were discharged from school in September, 1906.

Group III. Pupils who began but did not finish their second term in high school, the second half of their first school year. These pupils were discharged between October 1, 1906 and January 31, 1907.

Group IV. Pupils who began their second year in high school February 1, 1907, but who were discharged before June 30, 1907, during their third term in school.

Group V. Pupils who were discharged during the fall of 1907 from September 1, 1907 to January 31, 1908. This group includes the pupils who did not return to school after the summer of 1907 as well as those who re-entered and subsequently were discharged. These pupils had all stayed three terms in high school and some stayed nearly four terms or nearly two years.

Group VI. Pupils who were discharged from school between February 1, 1908 and January 31, 1909, that is, during their third year or 5th and 6th terms in high school. Some of these pupils were discharged in the spring of 1908, some failed to return after the summer and others were discharged late in the fall or early in the winter.

Group VII. Pupils who were discharged during their fourth year, or seventh and eighth terms in high school between February 1, 1909, and January 31, 1910. This group does *not* include the few who graduated or were certificated before the close of their fourth high school year.

Group VIII. Pupils who were certificated or graduated at or before the end of their fourth year in high school January 31, 1910.

Group IX. Pupils still on the school rolls February 1, 1910. These are the left-over or retarded pupils who stayed four years (eight terms) in high school but who failed in that time to complete satisfactorily the work necessary either for a certificate or for a diploma.

Summarizing all our figures we may say that before the close of their fourth term in high school half of all our pupils have left. Indeed we may say that nearly half of our pupils do not even stay to begin their fourth term. As to the rate of elimination we may say that approximately one-quarter do not stay longer than one term; over one-third stay no longer than two terms (one year); one-half, as has been stated, do not stay for two years; two-thirds do not begin their fourth year; three-quarters do not stay for four years.

ARRANGEMENT AND SIZE OF THE GROUPS I-IX

	Boys	Girls	Total
Group I—Feb., 1906–June, 1906	41	67	108
Group II—Sept., 1906	57	73	130
Group III—Oct., 1906–Jan., 1907	43	75	118
Group IV—Feb., 1907–June, 1907	29	48	77
Group V—Sept., 1907–Jan., 1908	50	65	115
Eliminated during first and second years	220	328	548
Group VI—Feb., 1908–Jan., 1909	37	57	94
Group VII—Feb., 1909–Jan., 1910	33	35	68
Eliminated during first, second, third and fourth years	290	420	710
Group VIII—Certificated or Graduated	43	68	111
Group IX—In school Feb., 1910	33	104	137
Revised totals, nine groups	366	592	958
Original entries, now omitted, "unclassified"	16	28	44
Original total recorded pupils	382	620	1,002

SAME GROUPS SHOWING PERCENTAGE OF ELIMINATION BY SEXES

	Boys	Per cent of total boys	Girls	Per cent of total girls	Total	Per cent of total
Group I	41	11	67	11	108	11
Group I–II	98	27	140	24	238	30
Group I–III	141	39	215	36	356	37
Group I–IV	170	46	263	44	433	45
Group I–V	220	60	328	55	548	57
Group I–VI	257	70	385	65	642	67
Group I–VII	290	79	420	71	710	74
Group VIII	43	12	68	11	111	12
Group IX	33	9	104	18	137	14
Total	366	100	592	100	958	100

In four years there is then an elimination of about three-quarters of our group at the rate shown. Finally of our remaining fourth, about one-half graduate on time and the other half remain as retarded pupils.

Without spending any time in a discussion of the differences in elimination between boys and girls it may be briefly noted that the boys are eliminated somewhat more quickly than the girls, this difference being most marked at the end of the first term in the first year and again during the seventh and eighth terms in the fourth year.

Almost exactly the same fraction of boys and of girls graduate on time, but there are relatively twice as many girls as boys in the retarded group of pupils beginning their fifth year in high school.

SECTION II

AGE AND ELIMINATION

There is now given a table showing the ages of the pupils who left during the periods covered by Groups I to VII. The graduates are shown in Group VIII and the pupils still in school in Group IX. The ages are arranged on the basis of the entering age only. Eleven years means from eleven years zero months, to eleven years eleven months, inclusive. All ages are calculated from February 1, 1906. Inasmuch as not all the pupils gave their age correctly at first and some could not be verified later, the totals of a group of ages rarely equal the total number of pupils in that group.

ELIMINATION BY AGES

AGE	I		II		III		IV		V		VI		VII		VIII		IX		TOTALS	
	B.	*G.*	*B.*	*G.*	*B.*	*G.*	*B.*	*G.*	*B.*	*G.*	*B.*	*G.*	*B.*	*G.*	*B.*	*G.*	*B.*	*G.*	*B.*	*G.*
11 years....	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0
12 years....	0	0	2	1	1	1	2	2	4	2	1	0	1	0	2	5	2	4	15	15
13 years....	9	13	10	18	14	16	7	12	10	14	11	15	10	10	19	33	10	27	100	158
14 years....	10	29	20	25	13	28	12	16	17	24	15	30	12	11	16	19	14	39	129	221
15 years....	12	17	15	18	9	22	4	15	12	13	5	6	8	12	4	10	4	27	73	140
16 years....	5	7	8	9	4	7	4	3	7	11	4	4	1	2	2	1	1	5	36	49
17 years....	1	1	2	0	1	1	0	0	0	0	1	0	0	0	0	0	1	1	6	3
18 years....	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1
Totals....	38	67	57	71	43	75	29	48	50	64	37	56	33	35	43	68	32	103	362	587

There are too few eleven-year-old pupils to consider. Of the twelve-year-old boys, two of fifteen graduated on time, and two are still in school retarded, while eleven have left school. Of the twelve-year-old girls five of fifteen graduated on time and four were retarded, leaving but six who have been thus far eliminated.

Of the 100 thirteen-year-old boys 19 graduated and 10 are retarded while 71 were eliminated in the course of four years. Of the thirteen-year-old girls (158 in all) 33 graduated and 27 are retarded while 98 were eliminated.

The largest entering group by age was the fourteen-year-old children. The median by sexes as well as that of the entire number of recorded pupils was 14½ years old. At an age recorded as fourteen but not yet fifteen we have 350 entering pupils, 129 boys and 221 girls; 16 of these boys finished on time, 14 were retarded and the remaining 99 were eliminated; while of the girls, 19 finished on time, 39 were retarded, and 163 eliminated.

Of the 109 boys who entered at fifteen or sixteen years of age but six graduated and five remained at the beginning of the 9th term. Ninety-nine out of 109 have dropped out. Of the 189 girls of similar ages 11 graduated and 32 are retarded while 146 have dropped out.

So far as age alone is concerned pupils who enter high school before they are fourteen years of age do very much better than those who are older. Of these pupils almost twice as many remain as of those who enter high school between fourteen and fifteen, while of the fourteen-year-old pupils in turn about twice as many remain as do of those who are fifteen or over.

The older pupils seem to leave in large numbers each fall. Many of these either do not return at all to school in September or else stay but a few weeks, possibly until they find a position to earn money, although many are attracted to the short courses of the "business colleges" already mentioned.

The relation of elimination to age also points to a shorter unified high school course for those whose age indicates that about two years will be their entire length of stay. Pupils who do not graduate from the elementary school until fifteen might possibly be allowed to elect in high school those subjects best fitted to their immediate requirements without any great alteration of the curriculum as it now stands, but a more wholesome plan would be the arrangement of elective shorter courses, the unity and correlation of which would be guaranteed by those who planned them.

"Have you younger brothers or sisters?"

	I	II	III	IV	V	VI	VII	TOTAL	VIII	IX	GRAND TOTAL
Yes....	43	59	56	27	46	38	21	290	35	36	361
No....	57	60	59	46	59	44	43	368	64	81	513
Blank..	8	11	3	4	10	12	4	52	12	20	84
	108	130	118	77	115	94	68	710	111	137	958

"Have you had any serious illness?"

	I	II	III	IV	V	VI	VII	TOTAL	VIII	IX	GRAND TOTAL
Yes....	18	24	30	26	35	32	19	184	37	44	265
No....	77	90	63	35	70	48	41	424	51	61	536
Blank..	13	16	25	16	10	14	8	102	23	32	157
	108	130	118	77	115	94	68	710	111	137	958

"Do you suffer from frequent severe headaches?"

	I	II	III	IV	V	VI	VII	TOTAL	VIII	IX	GRAND TOTAL
Yes....	23	27	26	16	23	15	9	139	19	28	186
No....	79	91	84	57	76	74	54	515	83	104	702
Blank..	6	12	8	4	16	5	5	56	9	5	70
	108	130	118	77	115	94	68	710	111	137	958

"Do you wear glasses?"

	I	II	III	IV	V	VI	VII	TOTAL	VIII	IX	GRAND TOTAL
Yes....	15	11	10	7	11	15	10	79	16	13	108
No....	89	106	99	62	85	74	53	568	86	115	769
Blank..	4	13	9	8	19	5	5	63	9	9	81
	108	130	118	77	115	94	68	710	111	137	958

YOUNGER BROTHERS AND SISTERS AND ELIMINATION

An examination of the eliminations shown by children in high school who have younger brothers as compared with the eliminations of those who have none younger in the family may help us to determine how far this factor influences elimination.

During the first two years 64 per cent of those having younger brothers or sisters are eliminated while but 55 per cent of those with no brothers or sisters younger, are eliminated. During the entire four years 80 per cent of those with younger children in the family are eliminated against 72 per cent of those with none younger.

This contrast in percentages while not startling is still great enough to be worthy of consideration. It appears that the pupil who has no younger brothers and sisters stands a somewhat better chance of staying in school than do the older children in a family. On the average he seems to stay nearly a term longer.

We have in these figures an estimate of the eliminating effect of narrow financial conditions that should be considered in connection with the factor of rent.

PREVIOUS SERIOUS ILLNESS AND ELIMINATION

In so far as previous serious illness has made a boy or girl enter high school at an advanced age we have already seen that it will increase that pupil's chances of early elimination. In so far as this illness leaves a pupil in a weakened state, unable to do the hard work required, one might also expect a greater early elimination. However, during the first two years those who report this early illness actually leave in less numbers than do those who make no such report. Only 50 per cent of those reporting previous illness have left as against 63 per cent of those reporting no illness. This is still more marked when we contrast these two factors (illness vs. no illness) in the total eliminations for four years. Those who report illness have lost 56 per cent while those who report no illness have lost 79 per cent.

Apparently then, previous serious illness among our recorded pupils cannot be counted as a serious impediment to continuance in high school. If anything, it might be said to mirror the attitude which may be discovered in families of meagre education where the strong healthy children are sent early to work as being able to take care of themselves in the struggle for existence, whereas the weak or sickly are kept in school as needing all that the school can give in order to enable them to succeed in their struggle for a livelihood.

Frequent Headaches and Elimination

No striking contrast is found in the eliminations of those who report frequent headaches and of those who report that they never so suffer. A few more (62 per cent) of those reporting headaches leave early in the course than do those (55 per cent) reporting no headaches. However, at the end of four years the percentage of eliminations from each group is almost exactly the same (75 per cent vs. 73 per cent) so that this factor may apparently be disregarded.

Wearing of Glasses and Elimination

During the first two years 57 per cent of those not wearing glasses have left as against 50 per cent of those who do wear glasses. At the end of four years, however, the two percentages (74 per cent vs. 73 per cent) may be considered practically identical.

In so far as eye strain is concerned there are no results from a study of our recorded group to show any very marked influences. About all we can say is that during the first two years children who suffer from headaches and those who do *not* wear glasses leave in somewhat greater relative numbers than those who have no headaches and do wear glasses.

So far as our study has shed any new light upon this question of eye strain it might be said to have weakened the previous value attributed to this factor as an influence in elimination.

SECTION III

NATIONALITY OF FATHER AND ELIMINATION

COUNTRY OF FATHER'S BIRTH AND ELIMINATION

	I	II	III	IV	V	VI	VII	TOTAL	VIII	IX	GRAND TOTALS
Blank	4	7	4	4	5	3	0	27	5	5	37
U. S. A.	46	60	38	35	43	46	39	307	45	76	428
Austria	2	3	8	3	6	0	2	24	8	2	34
Hungary	1	0	4	1	1	2	1	10	0	2	12
Bohemia	0	0	0	1	0	1	0	2	1	0	3
Canada, Eng.	1	0	1	0	2	1	0	5	1	3	9
Canada, Fr.	0	0	1	0	1	0	0	2	2	0	4
Denmark	0	2	0	0	1	1	0	4	0	0	4
England	7	4	5	3	6	5	2	32	5	6	43
France	0	0	0	1	1	2	0	4	1	1	6
Germany	14	23	17	10	23	13	6	106	22	12	140
Holland	0	1	0	0	1	1	0	3	1	0	4
Ireland	10	14	18	6	7	8	3	66	1	6	73
Italy	3	3	2	1	0	1	1	11	0	2	13
Norway	0	0	0	1	0	0	0	1	1	0	2
Poland	0	1	0	0	0	0	0	1	0	0	1
Russia	9	7	14	8	7	8	11	64	15	12	91
Roumania	3	0	1	0	0	0	0	4	0	2	6
Scotland	4	2	2	1	5	1	2	17	1	2	20
Sweden	2	2	0	0	3	0	1	8	1	2	11
Switzerland	0	1	1	0	1	0	0	3	0	1	4
Spain	0	0	1	0	0	0	0	1	0	0	1
Turkey	0	0	0	0	0	1	0	1	0	1	2
Euro., Heb.	2	0	1	2	2	0	0	7	1	2	10
Totals	108	130	118	77	115	94	68	710	111	137	958

1. *Totals of Groups I-V Inclusive*

Before the close of the fourth high school term, Groups I-V, *i. e.*, 57 per cent of our entering pupils, were eliminated. If the nationality of a pupil's father had any marked influence upon his retention in high school we should find the groups, when arranged by the father's nationality, varying markedly from the 57 per cent elimination which characterized the group as a whole. Such variation is, however, not conspicuous in any case. Indeed considering the possible variations that might arise from the selection of a necessarily limited number from the children of each nationality, it is remarkable how close to the 57 per cent line the number of eliminated children of each nationality comes.

Among the nationalities represented by a large number of pupils, in only two cases do the percentages differ markedly from the percentage of the entire group. The most significant comparative loss is in the group whose parents were born in Ireland. Fifty-five out of a total of seventy-three have left, which shows an elimination of approximately 75 per cent. A considerable loss is shown by the children of Austro-Hungarian parents (not divided in this investigation into Bohemian, Bulgarian, German, Hebrew, Magyar, Polish, Slovak, etc.), namely, 63 per cent. The Scotch, represented by only twenty at the start have lost fourteen or 70 per cent, but the small number of children of Scotch parentage considered, makes any generalization here uncertain. So also among the Austro-Hungarians the probable combination of five or six distinct races under one national name makes our results somewhat ambiguous. There only remains then the probability that the children of Irish parentage leave during the first two years in decidedly larger comparative numbers than those of any other parentage. It is for the careful student of national traits to make the explanation of this situation. It is beyond our province to attempt more than a mere statement of the facts.

We may however suggest that no study of Nationality by itself alone will develop all the facts. The combination of Nationality with the parents' occupation, monthly rental, size of family (number of older and younger children) at least, would be necessary if we were to attempt to follow this factor to an unquestionable conclusion.

2. *Totals of Groups I-VII*

At the close of the fourth high school year we find that nearly all the nationalities represented in our original entering population are also represented either in the graduating classes (Group VIII) or in the retarded group (Group IX).

If we consider Poland with Russia, and undoubtedly many children so recorded it on their cards, we find that only Denmark and Spain, with four and one original representatives respectively, are no longer represented.

Of the entire original number of recorded pupils now reduced to 958 we found that 74 per cent* had left the high school. In our eliminations by Nationality, Ireland, as was to be expected, leads with 90 per cent. Next in order come the smaller groups of Italian and Scotch parentage with 85 per cent each. Those of Austro-Hungarian, English and German parentage show an elimination about that of the total number (74 per cent), though the German percentage is slightly higher. Children of American parentage show about 72 per cent eliminated (in which, as we shall later see, the boys make up more than their share). The lowest percentage of eliminations among nationalities represented in any number is the Russian (largely Hebrew if not wholly so) with 71 per cent.

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* See tables on page 89.

The only nationalities present in sufficient numbers to allow a valid estimate of the median expectation of high school life are: U. S. A., Germany, Ireland and Russia (largely of course Hebrew). By the middle of the second term in high school half of the children of Irish parentage have left. By the middle of the fourth term half of the children of German parentage (German Hebrew included) have left. By the close of the fourth term (or second year) of high school half of the children of Russian (Russian Hebrew included) and of American parentage have left. The children of Irish parentage thus stay about half as long as those of German parentage and not quite half as long as the children of parents born in America or Russia.

So far then as our figures show the staying power of the races, the Russians (Hebrews) lead, with Americans second. However, this is not the complete story our records disclose. Staying in high school for four years may be no virtue and of little benefit if a pupil stays four years to make but two years' progress. A better appreciation of the situation may be secured when we come to study the parentage by Nationality of those who successfully completed their course. Further discussion on this point is therefore postponed until we come to a consideration of the graduating class groups.

NATIONALITY, SEX, AND ELIMINATION

As a rule no greatly marked distinction occurs between the elimination of boys and of girls whose parents are of the same nationality. There are however a few marked sex differences that are worthy of mention.

There are about twice as many girls of American parentage in our recorded totals as boys of similar birth. This approximates our total register of 38 per cent boys and 62 per cent girls but shows a slight excess of girls of American parentage over similar boys.

However, when we consider the elimination of these children, we find that before the close of the second year of school, 58 per cent of the boys of American parentage have left, while only 48 per cent of similar girls have left. In the graduating group no marked differences appear, boys and girls of American parentage being represented by approximately the same relative percentages (11). When however we come to the retarded pupils of Group IX, we find 11 per cent of the boys of American parentage contrasted with 21 per cent of the girls of similar birth. Among the children whose fathers were born in England, about the same sex differences appear as those just stated. The boys of Irish parentage also greatly exceed in their rate of elimination the girls of Irish parentage, though both leave very early.

Between the boys and girls tabulated under all the other nationalities there are no marked sex differences in elimination. Why should these boys of English speaking parentage leave high school so much earlier than the girls of similar parentage? Why should these boys leave earlier than the boys of other nationalities? Why should the girls of English speaking parentage be found in the retarded group relatively in excess of all the girls of other parentage?

So far as our recorded thousand is concerned these conditions are undeniably true. How far they mirror conditions throughout the city one must estimate. It may appear that the children of non-English speaking parentage use our public high schools to better purpose than those whose birth and language might give them an apparent advantage. Much of this responsibility, it might seem, must rest upon the parents themselves, rather than upon either the pupils or the school.

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SECTION IV

CHOICE OF OCCUPATION AND ELIMINATION

The tables which follow show the rates of elimination according to the occupation which the pupil expects or hopes to follow in earning his living.*

WHAT THE RECORDED BOYS EXPECTED TO DO FOR A LIVING

	Uncl.	I	II	III	IV	V	VI	VII	VIII	IX	Totals
Blank	2	5	5	4	0	3	1	1	4	2	27
Undecided	6	17	18	16	14	16	11	10	9	12	129
"Go to College"	0	0	2	0	1	0	0	1	3	2	9
"Some profession"	0	1	1	0	1	1	0	1	1	0	6
Architect	0	0	1	0	0	1	1	1	3	0	7
Artist	0	0	0	0	0	1	1	0	0	0	2
Banker	0	0	0	0	0	0	1	0	0	0	1
Bookkeeper	0	1	0	0	0	2	0	0	0	0	3
Botanist	0	0	0	0	1	0	0	0	0	0	1
Brewer	0	0	1	0	0	0	0	0	0	0	1
Broker	0	0	0	0	0	1	0	0	0	0	1
"Business"	2	4	8	6	4	5	3	1	1	2	36
Cheese merchant	0	0	0	0	0	0	0	0	0	1	1
Chemist	0	0	0	0	0	1	0	0	0	1	2
Dentist	0	0	0	1	0	0	1	0	0	0	2
Draughtsman	0	0	1	0	0	2	0	0	0	0	3
Electrician	0	2	2	0	2	1	0	0	0	2	9
Engineer	0	1	0	1	0	0	2	0	0	1	5
“ Civil	1	3	6	5	1	4	4	3	8	4	39
“ Electrical	2	2	5	3	0	3	7	2	2	1	27
“ Mechanical	1	0	1	0	1	0	0	2	0	0	5
“ Locomotive	0	1	0	0	0	0	0	0	0	0	1
“ Steam	0	1	0	0	0	0	0	0	0	0	1
Engraver	0	0	0	1	0	0	0	0	0	0	1
Farmer	0	0	0	0	0	1	0	0	0	0	1
Forester	0	0	0	0	0	0	0	0	1	0	1
Insurance	0	0	0	1	0	0	0	0	0	0	1
Law	1	1	2	1	2	3	4	4	4	2	24
Literary work	0	0	0	0	0	0	0	1	0	0	1
Machinist	0	0	0	1	0	0	0	0	0	0	1
Medicine	1	0	0	0	0	4	0	1	1	0	7
Merchant	0	0	0	0	0	0	1	0	0	0	1
Pharmacist	0	1	0	0	1	0	0	1	0	0	3
Policeman	0	1	0	0	0	0	0	0	0	0	1
Printer	0	0	1	0	0	0	0	0	0	0	1
Salesman	0	0	0	1	1	0	0	0	0	0	2
Ship builder	0	0	0	0	0	0	0	1	0	0	1
Stenographer	0	0	0	1	0	0	0	0	0	0	1
Surveyor	0	0	1	0	0	0	0	0	0	0	1
Teacher	0	0	1	1	0	0	0	2	4	3	11
Teacher of gymn	0	0	1	0	0	0	0	0	0	0	1
Teacher of music	0	0	0	0	0	1	0	0	0	0	1
U. S. Army	0	0	0	0	0	0	0	1	1	0	2
U. S. Navy	0	0	0	0	0	0	0	0	1	0	1
Totals	16	41	57	43	29	50	37	33	43	33	382

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* See Part II, Section VI, pp. 49-57.

WHAT THE RECORDED GIRLS EXPECTED TO DO FOR A LIVING

	Uncl.	I	II	III	IV	V	VI	VII	VIII	IX	Totals
Blank	2	3	5	13	3	8	4	4	7	7	56
Undecided	10	36	41	32	19	26	25	11	22	38	260
College	3	1	1	1	2	2	2	1	4	9	26
Artist	0	1	0	0	0	0	0	0	0	0	2
Author	1	0	0	0	0	0	0	0	0	0	1
Bookkeeper	0	3	1	1	1	2	0	0	1	0	9
"Business"	0	1	0	1	0	0	0	0	1	1	4
Designer	0	0	1	0	1	1	1	1	1	0	6
"Book covers"	0	0	0	0	0	0	1	0	0	0	1
Dressmaker	0	1	1	2	2	1	0	0	0	0	7
Housekeeper	0	1	0	0	0	0	1	0	0	0	2
Librarian	0	0	0	1	1	0	0	0	0	1	3
Law	0	0	0	1	0	1	0	0	0	0	2
Medicine	0	0	0	1	0	0	0	0	0	0	1
Milliner	0	2	0	0	0	0	0	0	0	0	2
Musician	2	2	0	0	0	0	0	0	0	3	7
Office work	0	1	0	1	0	0	0	0	0	0	2
Pharmacist	0	0	0	1	0	0	0	0	0	0	1
Stenographer	4	9	8	5	6	7	2	3	1	1	46
Teacher, P. S.	3	6	14	15	13	13	19	15	26	43	167
Teacher, elocution	0	0	0	0	0	1	0	0	0	0	1
Teacher, music	1	0	1	0	0	3	2	0	4	1	12
Teacher, phys. cult	1	0	0	0	0	0	0	0	0	0	1
Telegrapher	1	0	0	0	0	0	0	0	0	0	1
Totals	28	67	73	75	48	65	57	35	68	104	620

Groups I, II, III, IV and V contain the pupils who left during the first two years of their high school experience. By this time 60 per cent of the boys and 55 per cent of the girls had left the high school where they were recorded.

Of the boys in Groups I to V who were uncertain as to their probable future occupation we find that 68 per cent have dropped out; while among the girls the larger fraction of uncertain girls has been somewhat less depleted (61 per cent approximately having left). This would tend to show that the boy or girl, especially the boy, who has some definite occupation in mind lasts a trifle better than the boy with no such determination. The great majority of boys who named business (36 in all) as their occupation have left school, only about one-fifth remaining to begin their third year in high school. About half of those who elected Civil or Electrical Engineering have left, while about the same fraction of those who elected Law have dropped out.

On the whole, it may be inferred that the boys who elect occupations necessitating a college training remain longer than those whose aim is to prepare for other requirements; and yet it must be recognized that these boys by no means escape an already heavy elimination (approximately 50 per cent) which is not so far below the 60 per cent of all boys combined.

The number of girls leaving is made up to a considerable extent from the undecided girls and is augmented by nearly all the girls who have chosen business, bookkeeping, dressmaking, millinery, music and stenography. More than four-fifths of those that chose stenography have left. Of the total that remain practically the only girls choosing an occupation expect to become teachers and of these nearly two-thirds are still in school.

Elimination in Groups VI and VII, or during the third and fourth high school years, is decidedly less marked, as has been noticed.

Of the graduating group, Group VIII, we may notice that among the boys "Business"* with its 34 true starters has but one representative, which is nearly three times as poor a showing as that made by the undecided boys. Would-be Architects, Civil Engineers, Lawyers and Teachers make up nearly three-quarters of those expressing a choice among the boys who graduate on time.

Of the 68 girls who graduated 35 were those who expressed a definite choice and of these 35 not less than 26 hope to be (public) school teachers, while four others hope to be teachers of music. When we add to these graduates the 43 girls still in school who expect to become teachers, we may feel warranted in saying that our totals indicate that for girls the high school course stands above everything else as a preparation for teaching.

Group IX, the group of hold-overs or retarded pupils, mostly girls, is really noteworthy, on the point of chosen occupation, only because it contains so many girls (43) who expect to teach.

Reviewing the entire subject one might say that our figures suggest that boys who think they can gain the necessary training

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*It is possible that in the elimination of boys one would find that a very potent factor is a strong desire to do something which to the boy's own way of thinking is "really worth while." Many boys, often among the more able, grow more and more impatient of work whose immediate resultant benefit they cannot perceive. Because they feel capable of "making a living for themselves" these boys, many of whom choose "business" for a future occupation, are anxious to win their spurs in the real world of commerce rather than to delay longer in a theoretical preparation whose real utility they are not able to comprehend.

for their life work in any other way than through high school have selected that other way. Of those to whom a high school education is an absolute necessity, as a means of preparation, from one-half to two-thirds still fail to keep up with the standards required.

For the girls, business occupations, trades and stenography foretell an early elimination, while the girl who looks forward to teaching apparently stands the best chance of finishing her course.

The reader who is interested in any occupation should follow the history of those choosing it, horizontally across the table. He will find, for instance, that boys reporting "college" or "teaching" as their expected work stay in high school about four times as long as do boys reporting "business." By studying the tables horizontally a great number of interesting comparisons may be made which are necessarily omitted in our discussion because of lack of space.

SECTION V

EARLY INTENTIONS AND ELIMINATION

We have arranged tables which show both by numbers and by percentages the answers given by boys, by girls, and by totals to the question "Do you regard a high school course as necessary for the realization of your plans for the future?" It must be recalled that this question was asked and answered at the very outset of the pupils' high school career, before they had practically any opportunity of estimating the value of a high school course from personal observation.*

The tables which follow show the answers by sexes and by totals, first in actual numbers and afterward in percentages, arranged according to our elimination groups.

"Is a high school course necessary?"

NUMBER OF PUPILS IN EACH GROUP THAT REPLIED IN EACH WAY

BOYS	I	II	III	IV	V	VI	VII	TOTAL I–VII	VIII	IX	GRAND TOTALS
Yes.......	12	21	27	12	26	22	28	148	34	19	201
No.......	19	19	9	8	12	10	2	79	2	8	89
Undecided.	7	10	7	8	10	5	3	50	7	6	63
Total...	38	50	43	28	48	37	33	277	43	33	353

GIRLS	I	II	III	IV	V	VI	VII	TOTAL I–VII	VIII	IX	GRAND TOTALS
Yes.......	13	13	26	19	24	29	21	145	32	61	238
No.......	36	38	28	17	25	14	11	169	23	22	214
Undecided.	18	17	18	12	11	14	3	93	13	21	127
Total...	67	68	72	48	60	57	35	407	68	104	579

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* See Part II, Section VIII, pp. 69-78.

Number of Pupils in Each Group that Replied in Each Way—*Cont.*

Boys and Girls Totals	I	II	III	IV	V	VI	VII	Total I–VII	VIII	IX	Grand Totals
Yes.......	25	34	53	31	50	51	49	293	66	80	439
No.......	55	57	37	25	37	24	13	248	25	30	303
Undecided	25	27	25	20	21	19	6	143	20	27	190
Total...	105	118	115	76	108	94	68	684	111	137	932

The one way of getting an idea of the situation as a whole is to compare the percentages shown under the Grand Total by sexes with the percentages shown in any group or combination of groups of the sex studied.[1] For example 56 per cent[2] of the boys at the outset regarded a high school course as necessary. If these boys left exactly as rapidly as the others, we might expect from the star to find 56 per cent of the boys who answered "Yes" in each group and totals of groups. This is not the case, for in the total number of boys leaving by the end of two years (Group 1-5) we find only 45 per cent eliminated, at the end of four years (Group 1-7) 53 per cent, and in contrast the graduating group (8) shows that 79 per cent of its boys on entering the high school regarded its course as necessary. Similar comparisons may be made for those who answer "No" or "Undecided." In order to avoid a needlessly lengthy discussion of details, we may proceed at once to the more obvious conclusions, leaving a detailed study of the tables (which are presented in full) to those particularly interested in this one factor.

Let us compare the pupils who were eliminated during the first two years of our study (the pupils of Group 1-5 inclusive) with the pupils who remained four years (Groups 7, 8 and 9). The comparison is clearly made in the percentile table. As of course we should expect, the kind of a boy who leaves high school early is shown to be much less likely to have regarded a high school course as necessary than the boy who stays four years. The same fact holds for girls. but not so markedly.

A less obvious conclusion may be reached by a consideration

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[1] See page 106.

[2] See page 71.

"Is a high school course necessary?"

PER CENTS OF PUPILS IN EACH GROUP THAT REPLIED IN EACH WAY

ELIMINATION GROUPS	I	II	III	IV	V	TOTAL I-V	VI	VII	TOTAL I-VII	VIII	IX	GRAND TOTAL
BOYS												
Yes	31.6	42.0	62.7	42.8	54.2	45.2	59.5	84.8	53.4	79.0	57.6	57.0
No	50.0	38.0	21.0	28.6	25.0	30.8	27.0	6.1	28.5	4.7	24.2	25.2
Undecided	18.4	20.0	16.3	28.6	20.8	24.0	13.5	9.1	18.1	16.3	18.2	17.8
GIRLS												
Yes	19.4	19.1	36.1	39.6	40.0	30.2	50.8	60.0	35.5	47.1	58.6	41.1
No	53.7	55.9	38.9	35.4	41.7	45.7	24.6	31.4	41.5	33.8	21.2	37.0
Undecided	26.9	25.0	25.0	25.0	18.3	24.1	24.6	8.6	23.0	19.1	20.2	21.9
TOTALS												
Yes	23.8	28.8	46.1	40.8	46.3	37.1	53.7	72.1	42.9	59.4	58.4	47.1
No	52.4	48.3	32.2	32.9	34.2	40.4	25.3	19.1	36.2	22.5	21.9	32.5
Undecided	23.8	22.9	21.7	26.3	19.5	22.5	21.1	8.8	20.9	18.1	19.7	20.4

NOTE.—The figures in the above table are calculated from the records of the 932 pupils in Groups I to IX inclusive, not from those of the 1002 pupils who originally answered the question. Thus certain percentages here will properly differ from similar percentages reported on page 71, the groups in question being slightly different.

of the median expectancy of leaving, that is, the time when half of those giving one answer will have left. Roughly (from the totals of boys and girls) half of the "Yes" group stay till the middle of the fifth term, that is, they stay more than two full years. On the other hand, half of the "No" group leave before the second year is scarcely begun, that is, they stay but one full year. From this we may see that the pupil who answers "Yes" is apt to stay in high school about twice as long as the pupil who answers "No." Between the pupils who stay to the third year or later, and those who stay full four years, there is little difference.

From a comparison of the Median Expectancy of the boys answering "Yes" and the girls giving the same answer, it may be seen that roughly the girls who answer "Yes" indicate a stay of nearly three years as against the boys' two years. Boys and girls answering "No" are half of them eliminated before the end of the first year, there being little or no apparent sex difference here.

It should be understood that all the facts stated in these comparisons are fully consistent with the fact that many pupils who at first regarded the high school course as necessary, did not complete it, and that some who did not at first regard it as necessary still completed it. Neither is there any inconsistency in the fact that there is a great variability of length of stay in the "Yes" group and in the "No" group, so that whereas those in the "Yes" group, on the average, stay much longer, some of them do not stay nearly so long as some of them in the "No" group. Taken for the groups as a whole, the statements of tendencies toward elimination or toward graduation are clearly in accord with the figures of our tabulations.

Intention of Staying and Elimination

The next question concerns the influence of the pupil's determination to finish his course or to leave before graduation. This investigation in 1905-06 first brought to light the fact that a large number of the boys and girls who enter high school each fall have no intention of attempting to complete their course. This has already been discussed. We are interested chiefly now in finding out how many of those who really expected to graduate, have left school without graduating. As on the question of the necessity of a high school course, we print a table giving all answers by sexes and by totals.

"Do you expect to complete your course?"

	I	II	III	IV	V	VI	VII	TOTAL I–VII	VIII	IX	GRAND TOTAL
BOYS											
Yes	8	23	20	14	27	24	29	145	32	28	205
No	17	12	6	3	5	3	1	47	1	1	49
Undecided	13	22	17	11	16	10	3	92	10	4	106
Total	38	57	43	28	48	37	33	284	43	33	360
GIRLS											
Yes	11	19	25	23	28	36	23	165	55	85	305
No	32	27	14	8	7	3	2	93	4	5	102
Undecided	24	26	23	17	25	18	10	143	9	14	166
Total	67	72	62	48	60	57	35	401	68	104	573
TOTALS											
Yes	19	42	45	37	55	60	52	310	87	113	510
No	49	39	20	11	12	6	3	140	5	6	151
Undecided	37	48	40	28	41	28	13	235	19	18	272
Total	105	129	105	76	108	94	68	685	111	137	933

During the first two years, as was shown on page 89, over half of the pupils (57 per cent) who entered have left, the boys relatively somewhat in excess of the girls. Of the boys who expected to finish their course, only 43 per cent have left as against 60 per cent among boys as a whole. Of those who did not expect to finish 88 per cent have left. Of those in doubt, 75 per cent have left. Evidently the early determination of a boy to stay in school has a great influence on his length of stay. Nearly all of those who expected to leave have done so by the close of the second year. Of those in doubt, the great majority have apparently decided not to stay. The boys who intended to finish, show that intention in outlasting the other classes and yet 43 per cent, or over four in ten, even of these boys, have left. Again we must ask ourselves the questions "Have these boys left of choice or of necessity? If of choice, what were the factors? If of necessity, of what kind was the necessity—scholastic or financial?"

Of the girls who answered this question regarding their determination as to their length of stay, whereas 55 per cent of the girls at large have left, only 34 per cent who said that they intended to finish have left. This shows that the early determination of the girls is of more importance, after two years, than that of similarly minded boys, 43 per cent of whom were eliminated. Of the girls determined to leave before graduation nearly the same percentage (86 per cent) has left as in the case of boys expressing a similar expectation. The girls who were undecided at entrance show a large percentage of eliminations (69 per cent) but not so large a percentage as shown by boys who were undecided, 75 per cent of whom dropped out.

Here, as in many other measurements, we find additional evidence for believing that the high school does not appeal so strongly to the boys as to girls, probably, as has been suggested, for the reason that without a high school education no girl may expect to become a teacher in the public schools of New York City.

The facts above stated are seen even more clearly by noting the calculated expectation of high school life of those who say they expect to finish, those who say they do not expect to finish, and those who say they are undecided as to whether or not they will attempt to complete the course. Using in each case the median expectation, that is, the length to which half of the group in question remains, we find it to be as follows:

MEDIAN EXPECTATION OF PUPILS ANSWERING THE QUESTION

"Do you expect to complete your high school course?"

WHEN HALF OF THE BOYS WILL DROP OUT

"No"—at the end of the first half year.
"Undecided"—very early in the second year.
"Yes"—beginning of third high school year.

WHEN HALF OF THE GIRLS WILL DROP OUT

"No"—at the end of the first half year.
"Undecided"—toward the middle of the second year.
"Yes"—middle of the fourth high school year.

The boy who expects to complete the course thus has over four times as long a high school career as the boy who does not expect to finish, and the girl who expects to finish has about five times as long a stay as the girl who does not originally intend to graduate. The undecided boys and girls occupy a position midway.

SECTION VI

MONTHLY RENTAL AND ELIMINATION

In the part on The Entering Population we have discussed the question of monthly rentals and explained the various other elements that should be considered when one takes rental figures as an indication of a family's financial standing. It was there shown that as maximum rentals our figures are fairly trustworthy.*

The question of Rental and Elimination, is difficult to discuss apart from the other characteristics under consideration. In connection with rental should be considered the father's nationality, his regular occupation, the occupations and salaries of older brothers and sisters, the number of younger children in the family and the progress of the pupil himself in school as a promise of future profit from his high school education. That such a discussion is impracticable will be recognized, when one considers that the number of probable combinations might easily reach well up into the thousands. Therefore the question of rentals is discussed by itself and should be taken for what it represents alone, namely, one factor in the eight or ten we are following up as possibly influencing elimination.

Sexes and Rentals

In the total number of recorded entering pupils we have 382 boys and 620 girls, 1,002 pupils in all.

Out of this total number we were forced to omit some names (as explained previously) leaving 366 boys and 592 girls or 958 pupils as a total. The ratio of boys to girls is as in the original group still 38 per cent boys and 62 per cent girls. In looking up rentals absolutely no attention was paid to the sex of the pupils as addresses were alone considered at that time.

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* See Part II, Section IX, pp. 79-83.

MONTHLY RENTALS DISTRIBUTED BY SEXES AND ELIMINATION GROUPS

Monthly Rent	I			II			III			IV			V			VI			VII			VIII			IX			All Groups		
	B.	G.	T.	B.	G.	T.	B	G.	T.	B.	G.	T.	B.	G.	T.	B.	G.	T.	B.	G.	T.	B.	G.	T.	B.	G.	T.	B.	G.	T.
$10	3	2	5	1	2	3	3	2	5	0	2	3	1	3	4	1	0	1	1	2	3	3	3	6	0	3	3	13	19	32
15	9	12	21	9	6	15	9	12	21	6	8	14	6	9	15	6	6	12	9	5	14	6	11	17	3	8	11	63	77	140
20	1	6	7	1	3	4	2	1	3	0	3	3	3	0	3	1	3	4	1	2	3	2	6	8	0	1	1	11	25	36
25	2	4	6	1	6	7	2	7	9	3	6	9	3	7	10	2	3	5	2	1	3	6	4	10	2	8	10	23	46	69
30	1	1	2	0	1	1	1	1	2	..	..	..	0	1	1	0	2	2	0	2	2	0	1	1	0	1	1	2	10	12
35	0	0	0	2	6	8	2	3	5	1	1	2	3	3	6	1	3	4	1	0	1	0	2	2	0	3	3	10	21	31
40	0	0	0	0	1	1	..	..	..	..	..	..	0	1	1	1	1	2	..	..	..	0	0	0	0	0	0	1	3	4
45	1	2	3	3	1	4	..	.	..	0	3	..	..	..	..	0	1	1	2	0	2	1	0	1	3	3	6	10	10	20
50	..	..	..	1	0	1	..	..	..	..	..	..	1	0	1	..	..	..	..	..	..	..	..	..	0	1	1	2	1	3
55	..	..	..	1	0	1	..	..	..	0	1	1	1	0	1	0	1	1	..	..	..	0	1	1	0	1	1	2	4	6
60	..	..	..	1	0	1	..	..	..	..	..	..	..	..	..	1	0	1	..	..	..	1	0	1	..	..	..	3	0	3
65	..	.	..	..	..	..	..	..	..	1	0	1	2	0	2	1	0	1	1	0	1	..	..	..	..	..	..	5	0	5
70	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0	0	0
75	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	0	1	..	..	..	0	1	1	1	1	2
80	..	..	..	..	..	..	0	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0	1	1
85	..	..	..	..	..	..	1	0	1	1	0	1	..	..	..	..	..	..	..	..	..	..	..	..	0	1	1	2	1	3
90	..	..		1	0	1	1	0	1	..	..	..	..	..	..	0	2	2	..	..	..	1	0	1	..	..	..	3	2	5
95	..	..	..	..	..	..	..	..	..	..	..	..	..	..	.	..	..	..	..	..	..	..	..	..	..	..	..	0	0	0
100	0	1	1	1	1	2	..	..	..	..	..	..	0	1	1	..	..	..	..	..	..	1	0	1	0	3	3	2	6	8
110	1	1	2	0	1	1	..	..	..	..	..	..	..	..	..	1	0	1	..	..	..	..	..	..	..	..	..	2	2	4
120	..	..	..	1	0	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	0	1	2	0	2
130	.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0	0	0
140	0	1	1	..	..	..	..	..	..	..	..	..	1	0	1	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2
150	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0	0	0
Total cases	18	30	48	23	28	51	21	27	48	12	24	36	21	25	46	15	22	37	18	12	30	21	28	49	9	34	43	158	230	388
Medians	$15	$20	$15	$25	$25	$25	$15	$15	$15	$15	$20	$20	$25	$25	$25	$20	$25	$25	$15	$15	$15	$20	$15	$20	$25	$25	$25	$20	$20	$20

When, however, we came to tabulate our rentals under the proper sexes and groups we found that little or no difference existed between the original ratios and the ratios of rentals by sexes. Of our 420 rentals 388 came within Groups I-IX. Of these 41 per cent were the rentals of boys' homes and 59 per cent the rentals of girls' homes. Inasmuch as so nearly the same proportionate number of boys' rentals and girls' rentals were secured, except where there is in a group great deviation from this ratio, the rental by sexes will not be separately discussed.

GROUPS I-IX AND RENTALS

In Group I the great majority of our 48 pupils come between $10 and $30. The median for the group is $15. It may be noticed, however, that four pupils whose parents pay $100 or more are included in this group. It may be that these four pupils and possibly also the three at $45 will later enter private schools.

In the second group there is a marked rise in the median now $25 which is higher than the median ($20) of the combined groups. These pupils who failed to return to school in the autumn are apparently not chiefly those whom necessity would drive to work at once. Private schools again may have claimed some of this group.

In Group III the median falls again to $15, possibly indicating that those who left during the fall term were pupils who felt the fruitlessness of continuing in school as a means of increasing their earning power and being in need of earning money before long, decided to go to work at once.

Group IV repeats very much the conditions of Group III or Group I.

Group V (the pupils who left during the summer and fall of 1907) repeats the conditions of Group II. The median is again high ($25) and the supposition that some of those who failed to return in the Fall have selected private schools is again possible.

Groups VI and VII contain pupils who left school during their third and fourth years respectively. Those who left during their third year apparently outclass financially those who left during their fourth year as the median of Group VI is $25 and that of Group VII is $15. More than in any other group, except Group III, we have in Group VII indications of possible financial distress and the need for leaving school to earn money. It might be that Group VII represents pupils kept in school at considerable family sacrifice for nearly the four years and only when the prospect of graduation seemed doubtful or impossible, because of failures in lessons, were the pupils withdrawn to go to work.

Group VIII, our graduating pupils, shows a group median of $20, which is the same as that of the nine groups combined, but in the girls of this group we find the median only $15. This is a striking and important fact. So far as our figures go, they show us that narrow circumstances or even poverty is not a hindrance in the usual sense, but rather a spur toward normal graduation. The girls from the low rental homes do better in high school and graduate earlier than their much richer sisters. Here again attention must be called to the inducements offered to girls to become teachers and to secure positions paying far above those that most of them could possibly reach in the commercial world. Especially to the girl in meagre circumstances the spur toward graduation offered by the possibilities of a position as teacher is, it would appear, very strong indeed.

In Group IX (the "left-over" or retarded boys and girls), we find that the group median rises $5 above that of the graduates, while that of the retarded *girls* alone (girls make up three-quarters and more of this group) is $10 above that of the *girls* who graduated. Evidently these girls, many of whom will later graduate, do not feel the spur of necessity and are able to take four and a half, five, or even more years to graduate if necessary.

On the whole the economic status of these pupils (so far as it is shown by monthly rental) seems to be only a slight factor in the determination of length of stay in high school. The one most marked influence seems to be that the superior economic status in girls leads to a longer stay in spite of failure to progress at the "normal" rate. The general lack of evidence that poverty is a main cause of elimination, or perhaps a cause of any appreciable magnitude, is of course of the utmost importance. We saw in an earlier section that children remain through the elementary school and enter high school from homes of the most meagre financial resources. We now find that such children remain in high school as long or nearly as long as do children whose parents pay $40 or more a month for rent.

Summarizing our findings in this division of our investigation we might say that early elimination from high school is favored by a late entering age; by having younger brothers or sisters; by a childhood free from serious illness; by foreign-born parentage of Irish, Austro-Hungarian, Scotch or Italian stock; by the choice of "business" as an occupation by boys or stenography by girls; by a disbelief in the value of a high school course; by an uncertainty as to probable length of stay or a determination to leave early.

On the other hand elimination does not seem to be greatly increased by eye strain or frequent headaches. There is no evidence that poverty causes early elimination.

PART IV

ADVANCEMENT IN THE SCHOOL COURSE

SECTION I

GRADES FROM WHICH PUPILS WERE DISCHARGED

GRADES FROM WHICH BOYS WERE DISCHARGED

GROUP*.............	I	II	III	IV	V	VI	VII	TOTAL	VIII
Grade									
1A.................	41	20	14	3	2	0	0	80	0
1B.................	..	37	29	14	20	3	0	103	0
2A.................	..	..	..	12	21	7	0	40	0
2B.................	..	..	..	..	7	13	3	23	0
3A.................	..	..	..	..	..	12	8	20	0
3B.................	..	..	..	..	..	2	5	7	0
4A.................	..	..	..	..	..	..	11	11	0
4B.................	..	..	..	..	..	..	6	6	0
Graduated..........	..	..	..	..	..	..	..	...	43
Totals..........	41	57	43	29	50	37	33	290	43

GRADES FROM WHICH GIRLS WERE DISCHARGED

GROUP*.............	I	II	III	IV	V	VI	VII	TOTAL	VIII
Grade									
1A.................	67	33	33	7	0	1	0	141	0
1B.................	..	40	42	23	20	4	0	129	0
2A.................	..	..	..	18	22	11	4	55	0
2B.................	..	..	..	..	23	24	5	52	0
3A.................	..	..	..	..	..	12	9	21	0
3B.................	..	..	..	..	..	5	13	18	0
4A.................	..	..	..	..	..	..	2	2	0
4B.................	..	..	..	..	..	..	2	2	0
Graduated..........	..	..	..	..	..	..	..	...	68
Totals..........	67	73	75	48	65	57	35	420	68

* For the meaning of each group (I, II, III, etc.), see page 89.

DISCHARGES: BOYS AND GIRLS COMBINED

GROUP	I	II	III	IV	V	VI	VII	TOTAL	VIII
Grade									
1A	108	53	47	10	2	1	0	221	0
1B	...	77	71	37	40	7	0	232	0
2A	...	...	...	30	43	18	4	95	0
2B	...	...	...	..	30	37	8	75	0
3A	...	...	...	..	...	24	17	41	0
3B	...	...	...	..	...	7	18	25	0
4A	...	...	...	..	...	..	13	13	0
4B	...	...	...	..	...	..	8	8	0
Graduated	...	...	...	..	...	..	..	...	111
Totals	108	130	118	77	115	94	68	710	111

The tables we print showing the discharges of pupils from school by groups and by grades furnish us with some very interesting figures. Until we actually take up a definite group of pupils and trace their progress from term to term we are apt to underestimate the failure to gain semi-annual promotion that actually goes on.

Considering first the boys we find that more than a quarter of all the boys discharged do not even complete their first grade (1A) of high school work. An additional third of those who leave do not complete the work of the second grade (1B). *This makes a total of 63 per cent of boys eliminated who do not complete the work of the first high school year, Grades 1A and 1B.*

Almost exactly the same total per cent of the girls who leave are discharged from Grades 1A and 1B (64 per cent) but more girls than boys in proportion fail to finish even the work of the first grades. The percentages are for girls, from 1A 33.6 per cent, from 1B 30.7 per cent; and for boys from 1A 27.6 per cent, from 1B 35.5 per cent.

From Grade 2A, the first grade of the second year's work, about 14 per cent of the eliminated boys and about the same percentage of eliminated girls are discharged.

We now have approximately 77 per cent of our pupils who left during the four years, discharged before they have completed satisfactorily the work of even the first three of the eight high school grades. In other words, more than three-quarters of our eliminated pupils have been discharged without completing much more than one-quarter of the high school course. This surely is an alarmingly high percentage of eliminations in the lower grades.

Granting that the pupils who leave early do *not* as a whole prepare their lessons well, nor recite well, nor pass examinations well, in fact granting that many are failures as students, there still remains open the question as to whether many or all of these pupils who fail in their lessons fail because, after having given sufficient time to study, they are not mentally able to do the work assigned, or whether they fail because though mentally able, they simply do not attempt to do the work, having no interest in, or liking for it.

At this point it would be well for us to suspend judgment and merely to keep clearly in mind the two quite different reasons that may be assigned for the failure of our recorded pupils to satisfactorily complete the work of the earlier high school grades.

At first one might be led to attribute this most extraordinary showing entirely to the scholastic difficulty of the high school course. Any one who has taught in the earlier grades of the high school course will be very apt to testify to the apparently poor material which is given him for instruction. The pupils appear for the most part extremely ignorant and helpless. Above all they seem lacking in seriousness.

In the later high school grades there is found a rather high moral standard and seriousness of purpose regarding the preparation for daily work and the honest attempt to give each day's assigned work sufficient hours of home study. In the earlier high school grades, however, more pupils who shirk their lessons and who take little or no interest in their work will be found. The study of our tabulated measurements under Ability, Industry, and Results, may aid us in determining whether this apparent change of attitude on the part of the pupils who stay longer is real or whether merely the more serious and more studious remain while the less studious are eliminated.

In considering the discharges from Grade 2B, the fourth grade of the course, we find a much smaller representation in the total number of eliminated boys. A little less than 8 per cent of the boys discharged are discharged from the 2B grade. About 6 per cent are discharged from the 3A grade, 4 per cent from the 4A grade and 2 per cent from the 4B grade. There are, on the other hand, about 12 per cent of the eliminated girls discharged from 2B, 5 per cent from 3A, 4 per cent from 3B and less than one per cent from 4A and 4B.

While the elimination of boys from successive grades during four years goes on in decreasing percentages from 1B to 4B, that of the girls practically stops at 3B. This may in part be due to the fact that many boys who do not require the high school diploma in order to start upon their life-work drop out as soon as they feel they have secured from the high school about all the information or training it can give them. Especially in the non-classical courses many boys feel no compulsion upon them to secure a certificate of the completion of a four years' course, but will accept what they consider an unusually promising position in an office or a shop even in the last grade of their four years' course. With the girls, however, graduation from high school is a *sine qua non* for entrance to the training schools for teachers and to them the high school diploma is of more direct and immediate value.

It may also be possible, indeed it is probable, that a few of the boys who leave from 4A and 4B will, after perhaps a short period of employment, attempt to enter the high school department of the City College. Three such cases (discovered since the tabulation of all of our data) have actually been noted. On the whole, however, our figures for the last two grades apparently indicate that a high school diploma is not as seriously valued by many of our recorded boys as by the recorded girls.

The facts of this section are also capable of interpretation on the basis of retardation. For example, in Group VI (pupils discharged during their third year in high school), our totals show 94 pupils so discharged. While the "normal" progress would find all our pupils in Grade 3A or 3B we notice that the great majority of the discharges are in Grades 2A and 2B and even some in 1B and 1A.

SECTION II

GROUP IX: RETARDED PUPILS

The 33 boys and 104 girls* who did not graduate but stayed in school for full four years form by themselves a group which would deserve the most careful examination and discussion were we able to accomplish this without extending our study beyond the bounds of reasonable length. The fact is that *Retardation* is almost as intricate and important a subject for investigation as *Elimination* itself. The two processes are undoubtedly closely related, how closely no one has yet determined. Both are important from the standpoint of the school administrator and both are little understood at present.

All things being considered, it has seemed best not to enter into a discussion of Retardation at this time but to hold much of our information for the present in reserve. By doing this we will not confuse the two processes, Elimination and Retardation, and will avoid extending our study indefinitely.

However, while omitting any extended discussion, we still recall that Group IX (our 137 retarded pupils) has properly been shown in practically all of the tables given and has in some cases been already discussed briefly. Therefore for the benefit of the reader we may sum up these former observations in a few brief paragraphs, first discussing the possible formation of the group.

In studying this group one may take any one of four more or less opposing views: Either these pupils represent bright children but indifferent students who have neglected their school work either because they cared little for it, or because they are engaged in necessary wage-earning occupations out of school hours; or they represent hard-working pupils who are doing their best but who fail in the attempt to accomplish work too hard for their normal rate of progress; or they may represent fair students who have been led through an interest in athletics or school organizations to make no special effort to graduate on time; or finally they may represent pupils who, while having no aptitude for the school work they follow, are still kept in school by ambitious parents.

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* See page 89.

In reality, this group probably included some of each type mentioned together with some who have been retarded by chronic or temporary illnesses not reported and by still other reasons. The reader will do well not to confine his speculations to any one of the causes stated but to remember that all probably have some influence upon the formation of this group.

GRADES OF PUPILS STILL IN SCHOOL—GROUP IX

	1A	1B	2A	2B	3A	3B	4A	4B	Total
Boys	0	0	0	2	3	8	8	12	33
Approx. per cent.	..	..	..	6	9	24	24	37	100
Girls	1	0	2	4	12	14	27	44	104
Approx. per cent.	1	..	2	4	12	13	26	42	100
Totals	1	0	2	6	15	22	35	56	137
Approx. per cent.	1	..	1	4	11	16	26	41	100

RETARDED PUPILS NOT PROMOTED

	Boys	Girls	Totals
Once	12	44	56
Twice	8	27	35
Three times	8	14	22
Four times	3	12	15
Five times	2	4	6
More than five times	0	3	3

Present High School Grades

More than half of our retarded pupils have failed of promotion more than once in the four years. More than a quarter of the group have failed three times or more.

Seen from another standpoint, 61 per cent of the boys and 68 per cent of the girls of this group are in their fourth year of progress, while 39 per cent and 32 per cent respectively have more than one full year's work ahead of them before possible graduation. The one girl who is in 1A had been promoted three times during the four years, but of her own wish decided "to begin all over again" and so is recorded in 1A. There is no need to repeat in detail the facts as to grade reached in four years shown in the table.

AGES

Our retarded pupil's median age on entering was 14 years or over but not yet 15 years. Two of the nine pupils who were seventeen years old on entering are in this group as are also six of the original thirty who were not yet thirteen on entering. The age shows little except that the retarded pupils are as a rule slightly older than those who graduate on time.

NATIONALITY OF FATHER

The greater part of the retarded group is made up of girls whose parents were born in America. These largely are the girls whose high home rental indicated easy financial circumstances.

PUPIL'S CHOICE OF OCCUPATION

Most of the retarded boys who have remained four years are those whose choice would necessitate college graduation, while the retarded girls are made up almost wholly of the "undecided" and "teacher" groups in about equal proportions. Nearly twice as many girls who expect to teach are retarded as are graduated.

HIGH SCHOOL NECESSARY?

As has been suggested under choice of occupation most of our retarded pupils who have yet remained four years regard a high school course as necessary. Yet (though the gross number of such boys is greater) there are relatively just as many retarded boys from the classes that thought high school unnecessary or were undecided. However, among the girls those who thought the course necessary are found in the retarded group in as great relative numbers as the other two classes of girls ("No" or "Undecided") combined.

STAY FULL COURSE?

The retarded group shows very clearly that the early intention of staying for the full course is most potent in keeping pupils in school even though they do not graduate on time. Not only is the great majority of the total pupils in this group made up of boys and girls who intended to stay, but relatively as well the percentages show a very much greater number of those who intended to complete their full course.

YOUNGER IN FAMILY

Retarded pupils who have no younger brothers or sisters exceed those who have them, more than two to one; but in proportion to their original entries the ratio is only one-half greater for those with none younger in the family.

ILLNESS

More pupils proportionately who have had previous serious illness appear in this retarded group than do those who report no illness (Ratio 16 to 11). In gross numbers those with no illness exceed.

HEADACHES

Practically the same relative per cent of our retarded group report headaches and no headaches. Surprising as this may seem, the two opposing classes are represented by equal ratios. In gross numbers, however, those with no headaches outnumber the others almost four to one.

GLASSES

Those without glasses at entrance outnumbered those with glasses about seven to one. In the retarded group those without glasses outnumber those with glasses about nine to one.

RENTS

The median rental of the retarded group is $25 which is one-fourth higher than the median of the entire number of rents looked up. Nearly one-third of the girls come from homes where the rental is $45 and upward and one-tenth of the girls come from homes where the monthly rental is $100, which is extremely high.

SECTION III

PUPILS WHO GRADUATED ON TIME

INTRODUCTION

In all the following tables we do not show the percentages of the graduating group classified according to the different measurements, but instead we show the influence of each factor separately in assisting normal graduation.

Under the tables of Ages this distinction is not clearly shown, but under Nationality of Parent the distinction is clearer, *viz.*, of children of American parentage only 10 per cent of those who enter, graduate on time, as against + 16 per cent of the Russians and + 16 per cent of the Germans who enter. Yet actually fewer Russians and Germans (in the totals we studied) graduate from high school than do children of American parentage, the reason being, of course, that fewer Russians and Germans originally entered. Therefore at the start it is well to remember that we are not studying the characteristics of the graduates as such; that we are not especially interested in how many of the graduates were of certain ages, of certain parentage, of certain ambitions, of certain home conditions, etc., etc. We are interested rather in finding out how far any one factor appears to have assisted or retarded graduation. For this purpose our comparisons are constantly made with the number of pupils entering instead of with the totals graduating.

If we wish to have some basis for estimating very roughly whether or not a trait is valuable in assisting normal graduation, we might take as our basis 11 per cent, which is approximately the percentage on the basis of the totals by number of those who graduated from our original group.

In using this 11 per cent as a guide, we will rate as helpful, those characteristics which show markedly more than 11 per cent among the graduates, and as harmful, those which fall markedly below 11 per cent. On the other hand, characteristics which show approximately 11 per cent would be regarded as neutral, or of no determining value either for or against graduation.

The high school course is planned for the supposedly normal pupil. The work laid out term by term is supposed to be capable of accomplishment by such a pupil. If free from outside interferences this pupil is expected to complete his secondary education in four years except in certain special courses where the time is shorter by a year.

Out of 958 entering pupils we find that at the end of four years 43 of our 366 boys or about 12 per cent have either graduated or received a certificate of attendance. Of the girls 68 out of 592 or about 11 per cent have either graduated or received certificates.*

At the outset it may be noted, with perhaps no longer any surprise, that scarcely more than one pupil in nine of those who enter meets satisfactorily the conditions set in advance for the normal pupil. To be sure, not all of the eight who have failed to graduate on time have given up all hope of graduating. Some one or more in each nine are still in school hoping to finish the course within another year. However, with but 107 remaining who have completed even three years' work, one might be led to prophesy that certainly not more than two in ten of our original total will ever finish.

Leaving for the time being the expectation of future graduation out of our discussion we return to the fact that approximately 11 per cent of the original number are all that complete their supposedly normal course in the normal manner and time.

One may of course claim that this is, when one considers the material that enters, as high a percentage as should be expected, indeed as high a percentage as is desirable. This same person will claim that the high school is the first step in the selection of leaders for the community and that one in nine is as high a percentage of the select as should be allowed to proceed. Furthermore one of this mind will claim that equality of opportunity does not mean equality of accomplishment and that the evidence of a struggle with its subsequent elimination of the unfit is but a healthy sign of educational progress.

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* Certificates, it may be explained, are granted to pupils who complete the high school course (the required subjects and hours of recitation) without meeting the full requirements for graduation so far as class standing or examination averages are concerned. Some pupils who intend to enter college upon examination do not attempt to graduate, but secure certificates to enable them to enter these college entrance examinations; others who are unable to graduate because of poor standings in class work are still granted in deserving cases a certificate to show they have attended regularly the required recitations for the full course. For our purposes it does not seem necessary to exclude the certificated pupils from the group of pupils who finish their course in the so-called normal period.

One question, however, may be asked such an observer which should unsettle all his confidence: Can it be shown beyond a doubt that the eliminated pupils are "unfit" for educational advancement and is it conversely true that those who *are* selected are really the most "fit" of the entering group?

PER CENT OF ENTERING PUPILS GRADUATING, BY AGES

Age	Graduates	Total Entering	Per Cent Graduating
Boys			
11	0	2	....
12	2	15	13.3
13	19	100	19.0
14	16	129	12.4
15	4	73	5.4
16	2	36	5.5
17	0	6	....
18	0	1	....
Blank	0	1	....
Girls			
11	0	0	....
12	5	15	33.3
13	32	158	20.2
14	19	221	8.5
15	10	140	7.1
16	1	49	2.0
17	0	3	....
18	0	1	....
Blank	0	5	....
Totals			
11	0	2	....
12	7	30	23.3
13	51	258	19.3
14	35	350	10.0
15	14	213	6.5
16	3	85	3.5
17	0	9	....
18	0	2	....
Blank	0	6	....

Ages and Graduation

More boys who are 14 but not yet 15 years of age enter the high school than do those of any other year. However, but 12 per cent of these boys complete their course on time, while 19 per cent of those between 13 and 14 years graduate. Boys who are 12 and not yet 13 years old are represented by only 15 pupils, 13 per cent of whom graduate. Boys who are 15 or 16 but not yet 17 graduate between 5 per cent and 6 per cent. No boys who are seventeen or over or under twelve have graduated. Our records therefore show a greatly increased chance of normal graduation for the boys who enter high school within the year after their thirteenth birthday. Here it is probably not the degree of maturity alone or even primarily which functions, but rather the age which serves as an indication of previous success in the elementary school, as already discussed under Age and Ability.

For the girls, the small group of girls who on entering were 12 and not yet 13 makes the best showing with 33 per cent graduating on time, but this group is too small to permit us to give this percentage the greatest ability. The large group of 158 girls who were 13 and not yet 14 years old shows a graduation of 20 per cent about the same as that of the boys of equal age. Girls who are 14 and not yet 15 drop to 8.5 per cent with a drop of about one point more for girls who are a year older. Girls who are 16 but not yet 17 years old graduate 2 per cent. No girls (as was the case with the boys) who are 17 or more years old graduate on time.

So far as age is concerned we may readily conclude that 13 is the ideal age for high school entrance. The pupil who so entered has about twice the probability of normal graduation that the pupil one year older has; three or more times the probability of the pupil two years older, and from nearly four times (in the case of boys) to six times (in the case of girls) the chance of graduation of the pupil who is three years older.

To some, this may at once suggest the possibility of an age limit for entrance to the straight four years' course. To others it may suggest the value of a shorter course particularly planned for those whose age forecasts the probability of failure to graduates in the required time if at all.

PER CENT GRADUATING BY NATIONALITY OF FATHER

	Graduates	Total Entering	Per Cent Graduating
Blank	5	37	13.5
U. S. A.	45	428	10.5
Austria	8	34	23.5
Hungary	0	12	1.7
Bohemia	1	3	33.3
Canada, English	1	9	11.1
Canada, French	2	4	50.0
Denmark	0	4	0.0
England	5	43	11.6
France	1	6	16.6
Germany	22	140	15.7
Holland	1	4	25.0
Ireland	1	73	1.3
Italy	0	13	0.0
Norway	1	2	50.0
Poland	0	1	0.0
Russia	15	91	16.4
Roumania	0	6	0.0
Scotland	1	20	5.0
Sweden	1	11	9.0
Switzerland	0	4	0.0
Spain	0	1	0.0
Turkey	0	2	0.0
Euro. Hebrew	1	10	10.0

Of the nationalities represented by more than three per cent of the entering pupils, the children reporting Austrian parentage apparently make the best showing as 23 per cent of the original 34 have completed their course on time. Even when one combines Austria and Hungary, the percentage though it falls to 17 per cent is still the highest. Russia comes next with a little above 16 per cent. Then comes Germany with almost 16 per cent.

From these three nationalities, each with its very large Hebrew element not separately shown, we drop four points before the next nationality appears, which is English with 11.6 per cent of the original entries graduating on time. Next to the last of the nationalities represented by more than 30 entering children come those whose fathers were born in America. Of these children 10.5 per cent have graduated, or 45 out of the original 428. Finally we find the children of Irish parentage with scarcely more than one per cent, only one of the 73 who entered graduating on time.

The other nationalities are so scattered and represented by such small original numbers that it is impossible to use their percentages in any conclusions. It is, however, interesting to note that out of 22 or 23 nationalities originally represented there are still 14 or 15 nationalities represented in our graduating group; eight or nine nationalities however are represented by but a single graduate and in some of these cases it is probable that many are really of one race, Hebrews.

PER CENT GRADUATING BY FATHER'S OCCUPATION

	Graduates	Total Entering	Per Cent Graduating
Professional	6	36	16.7
Semi-professional	1	36	2.8
City and federal	6	61	9.9
Clerk	6	52	11.6
Trade and manufacture	41	227	18.1
Artisan	12	150	8.1
Transportation	3	46	6.6
Personal	5	41	12.2
Office, Agent	12	106	11.4
Laborer	0	36	0.0
Blank	19	179	10.5

Children whose parents' occupations were classed as Trade and Manufacture make the best showing in the graduating group, about 18 per cent of these children graduating on time. Next come the children of parents engaged in professional pursuits, with 16 per cent of the original group graduating. Third, fourth, and fifth, with little variation from 12 per cent of their entering groups, we find the children of parents engaged in Personal Service, Clerical Work and Agencies. Sixth, are the children of Municipal and Federal employees with 10 per cent of the original group among the graduates. The Artisans come next with 8 per cent of those who entered; then those engaged in Transportation with 6 per cent. Of those at all represented among the graduates the class named semi-professional has the lowest representation, but 2 per cent of such entries completing their courses on time. The children of Laborers are not represented in the graduating group at all, though as many such children entered as those whose fathers followed either professional or semi-professional pursuits.

PER CENT GRADUATING BY CHOICE OF OCCUPATIONS

	Graduates	Total Entering	Per Cent Graduating
Boys			
Blank	4	27	14.8
Undecided	9	129	6.8
"Go to College"	3	9	33.3
Some profession	1	6	16.6
Architect	3	7	42.8
Business	1	36	2.7
Civil engineer	8	39	20.5
Electrical	2	27	7.4
Forester	1	1	100.0
Law	4	24	16.6
Medicine	1	7	14.2
Teacher	4	11	36.3
U. S. Army	1	2	50.0
U. S. Navy	1	1	100.0
Girls			
Blank	7	56	12.5
Undecided	22	260	8.4
College	4	26	15.3
Artist	1	2	50.0
Bookkeeper	1	9	11.1
"Business"	1	4	25.0
Designer	1	6	16.6
Stenographer	1	46	2.1
Teach. P. S.	26	167	15.5
Teach. music	4	12	33.3

In choice of occupation the seven boys selecting Architecture show 43 per cent graduated; of the 11 selecting Teaching 36 per cent have graduated; of the 9 selecting "College" 33 per cent have graduated; of the 39 selecting Civil Engineering 20 per cent have graduated; of the 24 selecting Law 17 per cent have graduated; next comes Medicine with 14 per cent of its original 7; then Electrical Engineering with 7 per cent of 27; and finally "Business" with but 3 per cent of the original 36 which is lower than the 6 per cent of those "Undecided." These groups individually are too small to permit of generalizations but if we combine all the occupations which require a high school training, as an absolute prerequisite to later professional training in college, we find that in the neighborhood of 22 per cent of this class have graduated on time. From the standpoint of the graduating group alone, boys whose choice of their life work necessitates the completion of a high school course make up about two-thirds of the total graduating group. Indeed this fraction is too small because we have included as 21 per cent the 9 undecided boys and as 9 per cent the 4 boys who gave no answer at all. It might be fairer to say that nearly the entire graduating group of boys is made up of those boys who *must* graduate to fit themselves for their future work.

This is not equally true of the girls where we find several pupils graduating who do not absolutely need to graduate to meet the conditions of the work they intend to take up. Those who intend to teach music or be musicians graduate 4 out of 12 (33 per cent); whereas those who intend to teach in public school or to enter college graduate 30 out of 193 or 16 per cent.

Of those girls who chose a definite vocation, the girls expecting to teach made up about three-quarters of the entire graduating group. However, we find a very large percentage, nearly 43 per cent of the entire graduating group of girls, made up of the girls who were originally undecided or unwilling to state their choice. It would appear then that the girl who does not make an early choice of a vocation stands a better chance of graduating than does the boy who is similarly reticent or undecided.

PER CENT GRADUATING BY ANSWERS TO QUESTION:

"Is a high school course necessary?"

	Graduates	Total Entering	Per Cent Graduating
Boys			
No	2	89	2.2
Undecided	7	63	11.1
Yes	34	201	16.9
Total	43	353	
Girls			
No	23	213	10.7
Undecided	13	127	10.2
Yes	32	238	13.4
Total	68	578	
Totals			
No	25	296	8.4
Undecided	20	190	10.5
Yes	66	439	12.5
Total	111	925	

A larger percentage of boys who considered the high school course necessary have graduated than of similarly minded girls (17 per cent boys, 13 per cent girls). In both cases the pupils who regarded the course as necessary have graduated in much larger relative numbers than those who were undecided or opposed to the necessity for a high school course.

However, of the girls who regarded the high school course as unnecessary nearly 11 per cent have graduated as against 2 per cent of similarly minded boys. This contrast lends color to the supposition that a large fraction of those girls who answered "No" to this question had in mind for themselves no "career" other than that of the wife and mother, but decided to employ their time profitably during their adolescent years in gaining the culture and training of a secondary education. Of the undecided pupils one-ninth of the boys and one-tenth of the girls have graduated. The percentage of graduations is here almost as large as that of the entire group.

Summing up the situation we may say that early belief in the necessity of a high school education favors normal graduation. It is relatively less important among the girls than among the boys. Finally, boys who do not regard the high school course as necessary are extremely unlikely to graduate.

PER CENT GRADUATING BY ANSWERS TO QUESTION:
"Do you expect to complete your course?"

	Graduates	Total Entering	Per Cent Graduating
Boys			
No	1	49	2.0
Undecided	10	106	9.4
Yes	32	205	15.6
Girls			
No	4	102	3.9
Undecided	9	166	5.4
Yes	55	305	18.1
Totals			
No	5	151	3.3
Undecided	19	272	6.9
Yes	87	510	17.0

Of the boys who upon entering intended to stay for the entire course, only 15.6 per cent have graduated, although 13.7 per cent of this group are still in school as retarded pupils. Of the girls who expected to stay, 18 per cent have graduated and 28 per cent are still in school.

Over 9 per cent of the undecided boys have graduated and over 5 per cent of the undecided girls, while nearly 4 per cent of these boys and over 8 per cent of these girls are still in school. Of those who did not originally intend to stay for the full course, only 2 per cent of the boys and about 4 per cent of the girls have graduated while equally small percentages remain as retarded pupils.

With about one-seventh of our pupils still in school we are not permitted to say what influence this intention of finishing will have upon the number who will ultimately graduate, but we can negatively state that those who do not intend to graduate at the start stand almost no chance of doing so. We can furthermore state that a pupil's chances, particularly a girl's chances, of normal graduation appear to be decidedly increased by an early determination to do so.

However, when seen from the standpoint of eliminations we must still remember that before these pupils whom we have just discussed, graduated, 71 per cent of the boys and 54 per cent of the girls who originally expected to graduate have left the high school.

PER CENT GRADUATING WHO HAVE YOUNGER BROTHERS OR SISTERS

	Graduates	Total Entering	Per Cent Graduating
Yes	35	361	9.6
No	64	513	12.4
Blank	12	84	14.3

PER CENT GRADUATING WHO HAVE HAD ANY SERIOUS ILLNESS

	Graduates	Total Entering	Per Cent Graduating
Yes	37	265	13.9
No	51	536	9.5
Blank	23	157	14.7

PER CENT GRADUATING WHO SUFFER FROM FREQUENT SEVERE HEADACHES

	Graduates	Total Entering	Per Cent Graduating
Yes	19	186	10.2
No	83	702	11.8
Blank	9	70	12.8

PER CENT GRADUATING WHO WEAR GLASSES

	Graduates	Total Entering	Per Cent Graduating
Yes	16	108	14.9
No	86	769	11.5
Blank	9	81	11.2

Children who report no younger brothers or sisters graduate slightly more than 12 per cent, while those reporting younger children in the family graduate about 9.5 per cent. This would seem to show that being the only child or the youngest child increases a pupil's chance of normal graduation, though this is not a very marked advantage as the slight differences in the percentages given show.

Previous serious illness, so far as it shows anything, seems, in the struggle toward graduation, to be of rather marked advantage. The children reporting such illness graduate about 14 per cent while those reporting no illness graduate only 9½ per cent.

Headaches severe and frequent seem to have an influence of less than 2 per cent though this slight difference does exist in favor of those who do not suffer.

Between those who wear glasses and those who do not there is a difference of nearly 4 per cent in favor of those who do wear glasses. This should prove an argument of some value in urging parents to have their children's eyes properly tested and provided with glasses if the need for them is shown.

PER CENT GRADUATING BY RENT*

AMOUNT	GRADUATES	TOTAL ENTERING	PER CENT. GRADUATING
Boys			
Blank	22	...	....
$8–17	9	76	11.8
18–27	8	34	23.5
28 and up	4	48	8.3
Girls			
Blank	40	...	....
$8–17	14	99	14.1
18–27	10	71	14.0
28 and up	4	65	6.1

Homes where the rental is between $18 and $27 graduate 24 per cent of their original number among the boys or somewhat more than as many as those with lower and with higher rentals combined. Boys whose parents pay less than $18 made a better showing (12 per cent) than those whose parents pay more than $27, of whom 8 per cent graduate.

Girls whose parents pay less than $18 and those whose parents pay from $18 to $27 are almost exactly equal, with 14 per cent of their original entries graduating on time. Girls whose parents pay $28 and upward a month are represented among the graduates by but 6 per cent of all such girls who entered.

Extremely low rental is evidently less of an eliminating factor among the girls than among boys, but both boys and girls seem to show that low rentals indicate a markedly greater chance of normal graduation than do rentals more consistent with ease and social advantage.

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*For data see page 111.

On the whole, we find graduation assisted by entering at 13 years of age, by Austrian, Russian, or German (Hebrew?) parentage, by parents who are either shop-keepers or professional men, by the choice of an engineering or professional career for boys, or public school teaching for girls, by a belief in the personal value of a high school course and the fixed purpose of completing the course. On the other hand, graduation is opposed by entrance at fifteen or older, by Scotch, Irish or Hungarian parentage, by parents who are journalists, actors or musicians or who are employed in transportation, or finally by parents who are unskilled laborers.

Graduation is opposed by indecision as to future work or choice of a business career on the part of the pupil and is almost prevented in the case of boys by the lack of early belief in the value of graduation. For girls, however, the lack of belief in the value of graduation does not act very strongly in preventing graduation on time. Indecision as to whether or not a pupil will stay four years usually works against graduation while the early determination not to stay is rarely changed.

Homes where the rentals are between $18 and $27 greatly assist in normal graduation though girls (alone) from homes where the rent is less than $18 do just as well as those from rentals of $18 to $27. Rentals above $27 retard or oppose graduation on time.

PART V

EARLY PROMISE

SECTION I

STARTING THE CO-OPERATIVE INVESTIGATION

From the point of view of society at large the purpose of the high school as an educational institution may be twofold: first the elevation of the general intelligence of the growing members of a community by the dissemination of useful or cultural information; and second, the selection from the high school community of future leaders who will advance through higher institutions of learning to positions of responsibility and trust. The first aim is met by keeping in the high school, for as long a period as possible, *all* who enter, whether or not all who so enter show the ability which gives promise of future leadership. On the other hand, the second aim or purpose is accomplished by keeping in high school only those, few or many, who give promise of becoming at some later day *leaders* of thought and action in the various lines of work which they may select.

To a certain extent these two purposes of the high school as a social institution are antagonistic. In the first case, *elimination* is a fault to be seriously studied and so decreased to the lowest possible amount; while in the second case, elimination is no fault at all, but rather evidence of the successful progress of the process of selection which is one purpose of the high school to advance.

In the minds of many students of secondary education there has been for a long time serious doubt as to whether the high schools of to-day were so fashioned as to economically or efficiently accomplish either of the two purposes which give the high school its reasons for existence. In order to gain some concrete data for testing the efficiency of the high schools, it would be necessary for us to have some estimate of the *general promise* of our entering high school pupils. With such estimates in our possession, we could then follow these pupils from year to year and by studying the elimination of these pupils, find out to some extent whether the high school either kept *all* to what we might call the point of saturation, or whether, while it neglected the less fit and meritorious, it only kept those who early gave promise of later superior development.

The very first thing to be done in such an investigation, was then to secure some fairly trustworthy estimate of the general ability of those pupils who enter the high school. To do this by personal study and observation in the case of a thousand pupils, was of course out of the question. In no practical way save by the co-operation of a great many teachers could such general estimates be formed. It was therefore decided to seek assistance of the teachers in the various high schools concerned. That such estimates, while endeavoring to express general abilities apart from success in school work, should have a coloring of school values, might be expected, and yet in no other way could we secure anything at all which might serve as an index to the pupils' general promise of future development.

Because of different standards in different schools and because of different personal standards, there was no attempt made to secure grades for all the pupils on an absolute basis as, say, from 0 per cent to 100 per cent on any characteristic, but rather to arrange the pupils of a class in a linear sequence from the lowest to the highest within a class.

The progress of the attempt to secure the co-operation of the many men and women who taught our registered pupils is best shown by giving all the steps in the correspondence which was initiated. The following letters read in the light of our previous discussion will serve as their own explanation.

I give first the general letter sent to all the subject teachers of our recorded pupils.

TEACHERS COLLEGE, COLUMBIA UNIVERSITY

NEW YORK CITY, Feb. 1, 1906.

MY DEAR SIR OR MADAM:

The primary object of this letter is to interest you in the solution of a problem which is one of the most serious with which high school teachers have to deal.

Between eighty and ninety per cent of our high school pupils do not finish their course. Various opinions are hazarded to account for this condition, yet at present there is little concrete data upon which to base such explanations.

The aim of the collection of the data in which your assistance is sought is to scientifically determine in so far as the data allow, the reasons why the majority of pupils leave high school before graduation.

This investigation, which is limited to one thousand pupils in the high schools of Greater New York, is being supervised by Prof. Thorndike.

It is with the greatest hesitancy the writer (himself a teacher in a city high school) asks you to assist him in this investigation, because he recognizes the mass of clerical work with which you are already taxed. At the same time, if anything is to be accomplished in this line it must be the result of the co-operative action of a number of teachers in the various high schools of this city.

The results of this study cannot fail to be of some value. The degree to which they will be of value depends largely upon the care with which you, together with the other investigators, record your judgments. If you will assume a sympathetic attitude toward this work its disagreeable features will vanish. Your attitude toward the pupil is one of sympathy and helpfulness. May you not assume the same attitude toward this work which is intended to be of value to future high school pupils?

If, after having looked over the following explanation, you find yourself unwilling to take part in the investigation, please say so frankly, so that an attempt may be made to find some one to take your place.

You are asked to grade the class, a list of whose members accompanies this sheet, according to their relative rank so far as you can judge in each of six characteristics. In order that this work may be uniform, a more detailed explanation of the sense in which the various terms are used is given below.

1. ABILITY. Native ability apart from success or failure in any particular subject of study. Natural brightness.

2. INDUSTRY. Application to school work whether pleasant or unpleasant. Determination to accomplish an assigned task. Stick-to-it-iveness.

3. INTENSITY. A tendency to take things hard in general. "Going in for blood." Expenditure of energy in attack and accomplishment.

4. RESULTS. General efficiency. Not only undertaking a task or a line of work, but actually accomplishing some result in it. (This does not mean reliability or trustworthiness.)

5. BREADTH. Breadth of interests. Interest in a large number of things, topics, lines of work, outside of the required school work.

6. INDEPENDENCE. Dislike of restraint. Desire to be one's own master. The desire to plan and do for one's self.

The method of marking is as follows: For example, take the first column. Mark the boy or girl whose native ability you consider the best in the class + 1. The pupil whose native ability you consider the poorest mark — 1. In the same way mark the next to the naturally brightest + 2, and the next to the naturally dullest — 2. In this way grade so far as possible the entire class. When you find the plus and minus rankings to approach each other so closely that you are unable to distinguish any differences, mark the remaining pupils "M." Do not permit a hesitancy concerning the accuracy of your judgments to keep you from attempting to grade the entire class. When your ratings are combined with the ratings of the four or five others that are judging this same class, their value will be greatly increased by your expression of opinion as to the relative rank of each pupil in each of the six characteristics tabulated.

7. HOME. In this column you are asked to divide the pupils, in so far as you are able, into two classes. First, those whose parents are well able to keep their children in school until they graduate. Pupils of this class you will please mark "A." Second, pupils who are kept in school only by the real self-sacrificing efforts of their parents, and who may at any moment be forced to go to work to support themselves or to help support the family. Pupils of this class you will please mark "D." It may be that you have no knowledge of the home conditions of most of the class, but if you are able to assign to their correct class even three or four of the pupils, you will assist materially in the investigation.

Inasmuch as a very considerable number of pupils leave school during the first third of the term, you are asked to make your ratings at the earliest date at which you find yourself capable of expressing a fairly accurate opinion concerning the pupils in question.

The record of your investigations will be collected during the week immediately following the Easter recess.

Very truly yours,
JOSEPH K. VAN DENBURG.

JOSEPH K. VAN DENBURG, TEACHERS COLLEGE, COLUMBIA UNIVERSITY, N. Y. C.

SCHOOL CLASS GRADE DATE TEACHER

FOR DEFINITIONS, ETC., SEE EXPLANATORY SHEET ACCOMPANYING

	LAST NAME	FIRST NAME	1 Ability	2 Industry	3 Intensity	4 Results	5 Breadth	6 Independence	7 Home	8	9	10
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
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31												
32												

In order to explain certain difficulties that had been brought out in interviews and letters received, this second circular letter was sent out on April 11, 1906.

TEACHERS COLLEGE, COLUMBIA UNIVERSITY

NEW YORK, April 11, 1906.

This circular letter is being sent to all who have been asked to take part in the investigation as a news-letter giving information concerning the progress of this work.

In the first place not more than five teachers of the one hundred and ninety to whom letters were sent have expressed a desire to have some one selected to take their place. Even in these few cases the letters received expressed an interest in the investigation but gave particular reasons why they would be unable to take part. This augurs well at the outset for the success of the investigation we are carrying on.

Some questions have arisen concerning the grading of pupils on the six characteristics in question, and to answer these questions and assist in your work I ask your attention to the following points:

1. If, when teaching the class whose record is being taken, you keep in mind the six characteristics (ability, industry, intensity, results, breadth, independence) the class will almost unconsciously arrange itself into groups in each of the characteristics mentioned.

2. Each characteristic may often be graded more easily by keeping it particularly in mind during a certain recitation and then marking the class on that characteristic as soon as possible after the recitation is over.

3. Actual measurements of time with high school teachers show that it takes about fifteen minutes to grade a class on any one point. A further expenditure of time does not seem to greatly increase the accuracy of the record.

4. Extreme accuracy is not possible on so short an acquaintance with the pupils, but it is necessary to grade each class before many have left the school so an apparently inaccurate rating is far better than none.

5. Often a few pupils will appear so nearly alike on any one point that it seems wholly impossible to assign them marks in sequence. In that case each pupil may be given several marks or rather a group mark.

For example, you have selected the brightest pupil in the class and marked him or her + 1; the second brightest and marked him or her + 2, and so on until you come to the fifth pupil whom you cannot distinguish from three others in ability. In that case you would mark *each* one of this four "+ 5 to 8."

By using this grouping method you may avoid hair-splitting difficulties in marking the classes and still furnish valuable assistance in the investigation.

6. On the question of financial conditions at home, a few teachers have said: "I know nothing of the home conditions of my pupils." Surely this is an unfortunate statement if true, for how can we be of the most assistance to our pupils when we know nothing of the conditions under which they live. These suggestions are offered as helps to some on this point: (1) The pupil's own testimony, (2) Dress, (3) Bodily condition, (4) Location of home, (5) Manners of the pupil. It has been suggested that we grade only the extremes A (no financial difficulties at all), D (struggling against financial problems). However if you can distinguish classes, B (a shade below A) and C (a shade above D), so much the better.

The results of this ranking of pupils when tabulated and compared with the record of those who leave high school will tend to show *what kind* of pupils leave the high school before graduation.

These questions are asked by teachers and principals. "Do the brightest pupils remain until they graduate?" "Do the most industrious remain?" "Do those who get good results in their work leave early in the course?" "Is breadth of interests a help or a hindrance to a high school education under present conditions?" "Are financial reasons the chief ones that force pupils to drop out?"

So far there is no record of an investigation planned to answer these questions from a careful study of a large number of pupils other than that in which you are now taking part. Surely you may feel that such time and effort as you give to this work is well and profitably spent. You can see the possibility of our reaching results that will be of decided influence in secondary education in this city and in other cities similarly conditioned.

Finally, let me remind you that this is essentially a co-operative investigation in which success depends upon each one doing his or her share as fully as possible. May I therefore ask that you grade the pupils as far as you can on each of the seven points so that the papers may be collected on Friday, April 20th.

Very truly yours,
JOSEPH K. VAN DENBURG.

Up to the beginning of May, about seventy-five teachers had sent in their graded lists; but very few found it possible to cover all the ten headings on which each pupil was to be graded. So few, indeed, covered all ten points that it was found necessary to cut the number of points of comparison from ten to three, those three being Ability, Industry, Results.

It was then planned to secure the co-operation of teachers and pupils in a "follow up" system by which each registered pupil would receive special attention in the school and the cause for his or her elimination would be recorded as each pupil left school. To assist in this tracing of pupils two circular letters were sent out. The first one, to the teachers who had filled out the graded sheets, was as follows:

TEACHERS COLLEGE, COLUMBIA UNIVERSITY

NEW YORK, May 10, 1906.

The first stage of the investigation of elimination from New York City high schools is nearing a successful termination. The general spirit of those who were asked to take part in the investigation has been, as was foreseen, sympathetic and earnest. Cutting down the number of co-operative investigators to its smallest number 126, there remain only about fifty teachers still to be heard from. If any of these fifty happen to be in your school will you not use your influence to persuade them to mark the pupils on at least some of the characteristics chosen? This will increase the value of the marks already sent in by yourself and other teachers.

The second stage of the investigation is now under way, namely the "follow up" of pupils who have left or are leaving. For this purpose blank-books with a complete list of the class have been handed to the class teacher or class secretary of each class under investigation. In this book entries will be made under the pupil's name whenever a pupil leaves school. In this way the reasons assigned by the pupil who is leaving, together with the opinions of his or her teachers and class-mates, will be recorded.

As a third stage in the investigation, we are seeking to record the reasons assigned by pupils for leaving school. A ballot, of which the enclosed is a sample, has been prepared and pupils who are leaving are asked to record their reasons by this ballot and mail it to me. To increase the accuracy of these reasons, it has seemed best that they be considered private information, the total results in figures only being finally published. The form of the ballot has been compiled from the reasons assigned by actual pupils. Of course, little objective value can be assigned to these ballots. They will merely serve to classify the reasons pupils may be willing to give.

Regarding the first stage of the investigation, you may be interested in looking up the method in grading the pupils as a class by combining the estimates of the four or five subject teachers who have separately marked them. The method is fully explained in Professor E. L. Thorndike's book on Mental and Social Measurements. I cannot here give a full explanation of this method, for while it is clear and scientific, it is still necessarily rather elaborate.

Finally let me thank you again for you valuable co-operation and ask for a continuation of your especial interest in the pupils under observation in the classes you have graded. We have already better data than have ever before been secured on this question, but the "follow up" calls for continual observation for some time to come on the part of those who wish to continue the investigation.

Very gratefully yours,
JOSEPH K. VAN DENBURG.

The so-called third stage or "ballot test" did not prove successful from the start. It was found that pupils were leaving who would not fill out the ballots and so at the beginning of the last month of the first term of the investigation the following letter was sent to each of the class teachers and class secretaries of the twenty-eight classes registered.

TEACHERS COLLEGE, COLUMBIA UNIVERSITY
NEW YORK, June 1, 1906.

This circular letter is being sent to the class teachers or class secretaries of the twenty-eight high school classes whose records are being kept in connection with the study of Elimination from High Schools. You have already received a blank book containing a list of the members of your class. In these books, as you know, we are trying to keep a record of the reasons assigned by the pupils for leaving high school together with comments by teachers and classmates.

In this stage of the investigation great assistance is being given by the pupils themselves, for the majority of the pupils are seriously interested in the investigation which is intended to be directly helpful to them. In some schools this record is being kept wholly by the pupils, and they are doing the work very well as my examination of their records shows.

To further assist in recording and classifying the reasons assigned by pupils, ballots (approved by the superintendent of high schools and ten principals) have been printed on postal cards and pupils who leave are requested to vote secretly and mail the postals to me. It is not absolutely necessary that the pupil sign his or her name, but the name of the school and class should be filled in. A pupil may vote as many reasons as desired. Pupils will on the whole, I believe, vote honestly and not "for effect" when they know that their votes will never be made public except as total figures for the entire city. Of course, no *names* will ever be made public.

The ballots printed on postal cards are for actual votes. The ballots printed on white paper are for distribution among the pupils who may be expecting to leave and want to look the ballot over.

As you see the ballot is particularly adapted to explaining the reason so often given, *viz.*, "Gone to work." Of course, practically everybody "goes to work" sooner or later and that reason is not an explanation of why any pupil leaves at any definite date. In this connection a single objection has been raised to this ballot-line "Money needed at home." Personally I can see no reason for sensitiveness on this point but rather pride that one so young as most of our pupils are should be called upon to help support younger brothers or sisters.

Finally, of course, no pressure will be brought to bear on any pupil to vote unless he or she really wants to do so. The majority of the pupils will however be really glad to express themselves confidentially in this way.

With continued thanks for your very greatly appreciated co-operation, I am,

Very truly yours,
JOSEPH K. VAN DENBURG.

The first stage of this part of our investigation, the grading of pupils by their teachers, was, as will be seen, fairly successful on three of the characteristics named. The "follow up" conducted by paid helpers who went from school to school keeping track of discharges was, as will be seen, very successful, thanks to the very kind assistance rendered by the high school principals.

The ballot by which it was hoped to secure information directly from the pupils themselves was an entire failure. In most cases the pupil who left would give no reason at all; in fewer cases, the pupils gave such vague and indefinite reasons as to be valueless; while in still fewer cases the pupils gave reasons which were too apparently influenced by a conscious "pose" on the pupil's part. The ballot returns were therefore thrown out and this particular phase of the investigation was discontinued.

To return now to the first stage of our co-operative investigation, it is most pleasant to record that in the great majority

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[NOTE.—The tracing of pupils from term to term in the high school which included finding out the new class to which each pupil was sent at the end of each term was a most complicated task. This record of semi-annual promotion was rendered more confusing by the fact that a few high schools do not follow in their records the plan suggested by the Board of Superintendents, but use grade-names of their own devising so that "3A" for example in one school will mean that a pupil is in grade "2A" of the City System. In order to arrange all the pupils on a uniform basis the unique systems were each translated, at no little cost of time, into the uniform system recognized by the Board of Education.]

of cases the teachers addressed responded most cordially. In other cases teachers yielded only after one or two interviews. When one considers the amount of time and labor required to grade pupils (four or five hours of difficult mental work), the number of teachers who responded favorably was surprisingly large. Such a response stands as indisputable evidence of the excellent professional spirit which exists in New York City high schools. When once the teacher was convinced that this investigation might be of real benefit to the educational authorities and to future high school pupils, active co-operation was almost always immediately given.

In only a few cases, was the assistance which was asked withheld. The reasons given were, usually, lack of time, but with this was frequently coupled a statement of indifference as to the problem itself. In still fewer cases, the investigator met with active opposition, the teacher even going so far as to try to block the investigation by urging other teachers to withhold assistance. A candid statement should include the names of these teachers, but an unwillingness to offend, makes it seem better to omit quotations that were at first selected for reference.

To the following men and women acknowledgment is here made of the value of their services and most grateful recognition is given to the service which made them joint investigators with the writer.

DeWitt Clinton High School

Mr. Henry C. Moses
Dr. Cyrus A. King

Curtis High School

Mr. Henry F. Clark
Miss Whitney
Miss Robinson
Mr. Phillip Dowell
Mr. Harlow McMillan
Mr. James H. Shipley

Eastern District High School

Miss Mary R. Fitzpatrick
Mr. Henry E. Chapin
Mr. Wm. E. Finnegan
Mr. Wm. A. Kauffman
Miss Dorothy E. Tuthill
Miss Grace B. Dowling
Dr. Rachel L. Dithridge
Miss Mary Sullivan
Miss Eloise B. Santee
Miss Minnie Ikelheimer

Erasmus Hall High School

Mr. Albert E. King
Mrs. Brown
Mr. Wm. F. Tibbetts
Mr. Frederick W. Huntington
Miss Antoinette Lawrence
Miss Florence M. Scovill
Miss Jennie H. D. Stone
Miss Lucy Burns
Miss Mary M. Stone
Mr. Wm. M. Strong

Girls High School

Miss Lucy R. Bliss
Miss Sophia Ellis
Miss Grace A. Beard
Miss Emma F. Pettingill
Miss Ida M. Clendenin
Miss Maude R. Babcock

Washington Irving High School

Mr. Woodford D. Anderson
Miss Helen L. Cohen

Miss Louise B. Gere
Mr. John C. Welch
Miss Georgiana Hodgkins
Miss Lillian B. Sage
Miss Emma F. Lowd
Miss M. M. Sinsbaugh
Miss Christina M. Thompson
Miss Mary Towers

Manual Training

Mr. Ernest C. Dodge
Mr. Henry C. Wolcott
Miss Mary B. Dickman
Miss Georgiana C. Walton
Miss Elizabeth Abeling
Miss Lucia P. Chick
Miss Louise M. Puig
Miss Bertha Soule
Dr. Vincent Aldridge
Miss Marian Hackedorn
Miss Abby B. Holmes

Morris High School

Miss Eva M. Gowing
Miss M. G. Townsend
Miss Jennie Ackerly
Miss Anna A. Faulk
Miss Emily J. Gilmour
Miss Helene F. Konerman
Dr. Jas. E. Peabody
Miss Martha F. Goddard
Mr. Archibald J. Matthews

Stuyvesant High School

Mr. Clifford B. Griswold
Mr. Joseph L. Beha
Mr. Ambrose Cort
Mr. Joel Hathaway
Mr. Edward Hollander,
Mr. Ernest S. Quimby

Wadleigh High School

Miss Harriet C. Bugbee
Miss Marie L. Minor
Miss Hannah Wehle
Miss Hattie Herrmann
Miss Elizabeth Meserve
Miss Henrietta Rodman
Miss Elizabeth S. Underwood
And one whose name is now lost.

HIGH SCHOOL	TEACHERS		CLASSES		
	A	B	C	D	E
Clinton	9	2	2	0	2
Curtis	8	6	2	2	0
Commerce (See Note)	9	0	2	0	2
Eastern	10	10	3	3	0
Erasmus	13	11	4	4	0
Girls	6	6	2	2	0
Irving	19	10	5	2	3
Manual	17	11	4	3	1
Morris	12	9	3	2	1
Stuyvesant	7	6	2	2	0
Wadleigh	16	8	4	2	2
	126	79	33	22	11

A—Teachers asked to take part.
B—Teachers actually assisting.
C—Classes which were included in the first census.
D—Classes for which marks were secured.
E—Classes for which ratings could not be secured.

[NOTE.—All efforts to secure comparative ratings in the High School of Commerce were unavailing because, owing to an excellent system of re-grading, the entering classes were broken up a few weeks after the beginning of the term and the boys who made up our recorded classes were re-distributed into new class units which made comparative ratings on the old basis unobtainable.]

In all, some fifty or sixty personal letters and nearly as many postals were received from the teachers co-operating in the investigation. Many of the writers expressed a marked distrust as to the accuracy of their ratings but nearly all expressed a genuine interest in the subject under investigation.

Had it not been for the active co-operation of these men and women one of the most important questions of this entire investigation could not have been answered. With their aid we are able to publish a study of " Early Promise and Elimination " such as to the writer's best knowledge has never before been undertaken.

SECTION II

INTRODUCTION TO TABLES AND TABULATIONS OF EARLY PROMISE

The discussion of Elimination, Graduation, or Retardation on the basis of the "Early Promise" of our recorded pupils has been re-written from the beginning no less than four times and is still unsatisfactory. To lead a reader through the exact statistics of so many recorded tabulations (approximately ten thousand in the original), without losing sight of the main points of the discussion in the multiplicity of details, is an almost impossible task.

In order to avoid this probable confusion the discussion of Ability, Industry and Results by groups (I-IX) has been omitted even though finally prepared at the expense of two months' solid work. Instead we will take up for consideration only the Median Expectation for each characteristic, although we will print for the statistical reader the condensed tables arranged by elimination groups.

The investigator must plead guilty to the omission of a revision of these tables on an exact linear sequence from 1-32. As we have some 22 classes graded in linear sequence we should expect to find the same number of pupils (22) graded as 1st, 2nd, 3rd, etc., to 32nd in each class. Instead of finding this balance we find in its place totals, in Ability for example, that vary from two (graded 31st) to fifty-three (graded 18th). The explanation of this apparent inconsistency lies in the fact that after the three, four, or five ratings, given to each pupil by individual teachers, were combined, the *median grade* was kept and the class was *not* re-arranged on a linear sequence showing the pupils resultant linear place in his class from 1-32.

For example, a certain pupil was rated by five teachers as 1st, 2nd, 3rd, 4th, 5th in his class in Ability. The median rating is 3rd and the pupil in our tables is put in the third place in the sequence, even though it happened that no pupil in that class was given a *combined* rating higher than third.

The result of tabulating all pupils on their combined ratings rather than upon a re-arranged linear sequence has been to lessen the total numbers shown under the ratings at the extremes (say 1st to 9th and 23rd to 32nd) and to increase the totals shown for the pupils rated at or near the middle of their respective classes. If, however, we divide our sequence into thirds based upon the total of pupils included in a succession of ratings we will be sure of securing a fairly accurate division which will show a pupil's position as either in the top, middle, or bottom of his class on the characteristic in question. To illustrate: No matter if a pupil be ranked 1st, 5th, or 7th in our tables he will appear in the *first third* of his class and in our discussions we shall need to make no finer distinctions.

In making our divisions into approximate thirds for the sake of discussions we find that we cannot arrange these pupils into exact arithmetical thirds because to do so we would have to count some of the pupils, rated 12th for example, in the first third and some rated 12th in the second third. We are obliged, then, to draw our lines of division into thirds between the ratings which most nearly make the division we seek. Consequently in Ability our approximate thirds show totals of 235, 271 and 234 instead of 246.6, 246.6, 246.6, and similar deviations from exact thirds appear in the totals under the other characteristics studied.

ABILITY—INDUSTRY—RESULTS

	I	II	III	IV	V	TOTAL I-V	VI	VII	TOTAL I-VII	VIII	IX	GRAND TOTAL
ABILITY												
1-11	17	19	16	17	26	95	20	15	130	70	35	235
12-19	31	42	34	23	30	160	29	21	210	21	40	271
20-32	44	34	33	17	26	154	23	10	187	10	37	234
INDUSTRY												
1-11	16	24	22	20	23	105	17	13	135	56	39	230
12-19	30	36	26	18	27	137	29	21	187	26	37	250
20-32	47	33	30	17	27	154	25	10	189	9	29	227
RESULTS												
1-11	15	13	24	17	23	92	27	17	136	70	42	248
12-19	25	46	27	25	37	160	25	22	207	25	52	284
20-32	54	42	36	16	28	176	32	15	223	8	34	265

ABILITY

	I	II	III	IV	V	Total I-V	VI	VII	Total I-VII	VIII	IX	Total
Boys												
1-11	4	4	5	3	8	24	9	6	39	23	9	71
12-19	11	18	7	7	4	47	9	9	65	5	9	79
20-32	15	11	8	3	13	50	5	3	58	6	5	69
Girls												
1-11	13	15	11	14	18	71	11	9	91	47	26	164
12-19	20	24	27	16	26	113	20	12	145	16	31	192
20-32	29	23	25	14	13	104	18	7	129	4	32	165
Boys												
1-15	6	13	9	9	11	48	10	9	67	26	13	106
16-32	24	20	11	4	14	73	13	9	95	8	10	113
Girls												
1-15	21	31	20	21	28	121	18	12	151	56	45	252
16-32	41	31	43	23	29	167	31	16	214	11	44	269
Boys and Girls Totals												
1-11	17	19	16	17	26	95	20	15	130	70	35	235
12-19	31	42	34	23	30	160	29	21	210	21	40	271
20-32	44	34	17	17	26	154	23	10	187	10	37	234
Boys and Girls Totals												
1-15	27	44	29	30	39	169	28	21	218	82	58	358
16-32	65	51	54	27	43	240	44	25	309	19	54	382

INDUSTRY

	I	II	III	IV	V	Total I-V	VI	VII	Total I-VII	VIII	IX	Total
Boys												
1-11	3	7	6	3	6	25	5	6	36	20	8	64
12-19	9	16	5	5	6	41	13	11	65	8	7	80
20-32	21	12	9	4	11	57	5	1	63	5	8	76
Girls												
1-11	13	17	16	17	17	80	12	7	99	36	31	166
12-19	21	20	21	13	21	96	16	10	122	18	30	170
20-32	26	21	21	13	16	97	20	9	126	4	21	151
Boys												
1-15	9	13	7	6	8	43	9	8	60	22	14	96
16-32	24	22	13	6	15	80	14	10	104	11	9	124
Girls												
1-15	25	22	23	25	25	120	19	12	151	46	44	240
16-32	35	36	35	18	29	153	29	14	196	13	38	247
Totals												
1-11	16	24	22	20	23	105	17	13	135	55	49	230
12-19	30	36	26	18	27	137	29	21	187	26	37	250
20-32	47	33	30	17	27	154	25	10	189	9	29	227
Totals												
1-15	34	35	30	31	33	163	38	20	211	67	58	336
16-32	59	58	48	24	44	233	43	24	300	24	47	371

RESULTS

	I	II	III	IV	V	Total I-V	VI	VII	Total I-VII	VIII	IX	Total I-IX
Boys												
1- 1	3	2	10	4	7	26	12	7	45	23	9	77
12-19	8	18	3	6	7	42	7	10	59	6	9	74
20-32	22	13	9	3	15	62	8	4	74	6	6	86
Girls												
1-11	12	11	14	13	16	66	15	10	91	47	33	171
12-19	17	28	24	19	30	118	18	12	148	19	43	210
20-32	32	29	27	13	13	114	24	11	149	2	28	179
Boys												
1-15	3	13	11	7	10	44	13	8	65	24	12	101
16-32	30	20	11	6	19	86	14	13	113	11	12	136
Girls												
1-15	20	29	20	21	28	118	22	13	153	55	52	260
16-32	41	39	45	24	31	180	35	20	235	13	52	300
Totals												
1-11	15	13	24	17	23	92	27	17	136	70	42	248
12-19	25	46	27	25	37	160	25	22	207	25	52	284
20-32	54	42	36	16	28	176	32	15	223	8	34	265
Totals												
1-15	23	42	31	28	38	162	35	21	218	79	64	361
16-32	71	59	56	30	50	266	49	33	248	24	64	436

ABILITY AND ELIMINATION

	I			II			III			IV			V			VI			VII			TOTAL I-VII			VIII			IX			GRAND TOTAL		
	B.	G.	T.	B.	G.	T.	B.	G.	T.	B.	G.	T.	B.	G.	T.	B.	G.	T.	B.	G.	T.	B.	G.	T.	B.	G.	T.	B.	G.	T.	B.	G.	T.
1.	0	1	1	0	0	0	0	0	0	0	1	1	0	1	1	0	0	0	1	0	1	1	3	4	3	4	7	0	2	2	4	9	13
2.	0	0	0	0	0	0	0	1	1	0	0	0	1	1	2	0	1	1	0	1	1	1	4	5	2	6	8	0	0	0	3	10	13
3.	0	1	1	0	2	2	0	0	0	1	1	2	1	1	2	0	0	0	1	1	2	3	6	9	4	2	6	0	1	1	7	9	16
4.	0	0	0	1	0	1	0	0	0	0	0	0	0	1	1	1	1	2	0	1	1	2	3	5	1	11	12	2	1	3	5	15	20
5.	0	0	0	0	1	1	1	1	2	0	1	1	0	3	3	1	2	3	0	0	0	2	8	10	2	7	9	2	3	5	6	18	24
6.	1	1	2	1	1	2	1	0	1	0	3	3	2	4	6	0	0	0	1	0	1	6	9	15	3	5	8	0	2	2	9	16	25
7.	0	5	5	1	0	1	0	0	0	0	0	0	1	1	2	0	0	0	0	1	1	2	7	9	1	4	5	1	2	3	4	13	17
8.	0	0	0	0	2	2	2	2	4	0	1	1	0	1	1	2	1	3	1	1	2	5	8	13	2	1	3	2	0	2	9	9	18
9.	0	3	3	1	1	2	1	2	3	1	2	3	2	2	4	1	0	1	0	2	2	6	12	18	2	0	2	0	3	3	8	15	23
10.	1	0	1	0	6	6	0	4	4	1	4	5	1	1	2	3	3	6	2	1	3	8	19	27	2	3	5	1	4	5	11	26	37
11.	2	2	4	0	2	2	0	1	1	0	1	1	0	2	2	1	3	4	0	1	1	3	12	15	1	4	5	1	8	9	5	24	29
12.	0	1	1	0	6	6	1	3	4	1	2	3	1	4	5	0	2	2	0	0	0	3	18	21	1	3	4	0	3	3	4	24	28
13.	0	2	2	2	6	8	2	2	4	3	2	5	1	1	2	1	2	3	1	2	3	10	17	27	0	3	3	2	6	8	12	26	38
14.	1	1	2	2	1	3	0	4	4	0	1	1	1	1	2	0	1	1	1	1	2	5	10	15	1	0	1	1	5	6	7	15	22
15.	1	4	5	5	3	8	1	0	1	2	2	4	0	4	4	0	2	2	1	0	1	10	15	25	1	3	4	1	5	6	12	23	35
16.	1	4	5	3	0	3	0	2	2	0	0	0	0	5	5	0	1	1	1	6	7	5	18	23	1	3	3	1	3	4	7	24	31
17.	2	3	5	2	1	3	0	3	3	0	2	2	0	4	4	3	0	3	1	3	4	8	16	24	0	2	2	2	1	3	10	19	29
18.	4	4	8	2	5	7	2	10	12	1	4	5	0	4	4	4	6	10	3	0	3	16	33	49	0	2	2	0	2	2	16	37	53
19.	2	1	3	2	2	4	1	3	4	0	3	3	1	3	4	1	6	7	1	0	1	8	18	26	1	0	1	2	6	8	11	24	35
20.	4	1	5	1	5	6	2	2	4	0	3	3	1	2	3	1	1	2	0	0	0	9	14	23	1	2	3	1	9	10	11	25	36
21.	0	3	3	0	1	1	1	3	4	1	2	3	2	3	5	0	3	3	0	1	1	4	16	20	0	0	0	2	3	5	6	19	25
22.	1	6	7	0	1	1	0	2	2	1	0	1	1	1	2	0	1	1	1	1	2	4	12	16	0	1	1	1	3	4	5	16	21
23.	2	1	3	1	2	3	1	1	2	0	1	1	0	0	0	1	1	2	0	0	0	5	6	11	0	0	0	1	1	2	6	7	13
24.	0	4	4	2	0	2	0	2	2	0	1	1	0	0	0	2	2	4	2	1	3	6	10	16	2	0	2	0	2	2	8	12	20
25.	1	2	3	3	6	9	1	3	4	0	1	1	1	3	4	0	3	3	0	1	1	6	19	25	0	1	1	0	4	4	6	24	30
26.	1	2	3	1	1	2	0	3	3	0	1	1	1	2	3	0	2	2	0	0	0	3	11	14	1	0	1	0	2	2	4	13	17
27.	1	5	6	1	2	3	0	2	2	0	1	1	1	0	1	0	2	2	0	2	2	3	14	17	0	0	0	0	4	4	3	18	21
28.	2	3	5	1	3	4	0	2	2	0	2	2	1	1	2	0	0	0	0	1	1	4	12	16	2	0	2	0	3	3	6	15	21
29.	1	0	1	0	1	1	0	3	3	0	1	1	0	1	1	0	0	0	0	0	0	1	6	7	0	0	0	0	1	1	1	7	8
30.	1	1	2	1	1	2	0	2	2	1	1	2	3	0	3	0	2	2	0	0	0	6	7	13	0	0	0	0	0	0	6	7	13
31.	0	0	0	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	2	0	2
32.	1	1	2	0	0	0	2	0	2	0	0	0	1	0	1	1	1	2	0	0	0	5	2	7	0	0	0	0	0	0	5	2	7
Totals	30	62	92	33	62	95	20	63	83	13	44	57	25	57	82	23	49	72	18	28	46	162	365	527	34	67	101	23	89	112	219	521	740

INDUSTRY AND ELIMINATION

	I			II			III			IV			V			VI			VII			Total I–VII			VIII			IX			Grand Total		
	B.	G.	T.	B.	G.	T.	B.	G.	T.	B.	G.	T.	B.	G.	T.	B.	G.	T.	B.	G.	T.	B.	G.	T.	B.	G.	T.	B.	G.	T.	B.	G.	T.
1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	0	2	2	0	0	0	0	3	3
2	0	0	0	0	0	0	1	1	2	0	2	2	0	0	0	0	1	1	0	0	0	1	4	5	4	0	4	0	1	1	5	5	10
3	0	0	0	0	0	0	2	0	2	1	1	2	0	3	3	0	0	0	0	0	0	3	4	7	3	3	6	0	0	0	6	7	13
4	1	0	1	1	1	2	0	2	2	0	0	0	0	2	2	0	2	2	0	1	1	2	8	10	4	6	10	2	1	3	8	15	23
5	0	1	1	0	2	2	0	1	1	0	2	2	2	0	2	1	2	3	1	0	1	4	8	12	0	4	4	0	5	5	4	17	21
6	0	2	2	0	1	1	0	2	2	1	1	2	0	2	2	0	1	1	3	0	3	4	9	13	5	3	8	0	3	3	9	15	24
7	0	3	3	0	3	3	0	0	0	0	1	1	1	3	4	0	1	1	0	1	1	1	12	13	1	5	6	2	6	8	4	23	27
8	0	3	3	0	2	2	1	4	5	0	1	1	1	1	2	3	1	4	0	1	1	5	13	18	1	6	7	1	2	3	7	21	28
9	0	0	0	2	4	6	1	1	2	0	3	3	0	1	1	0	2	2	0	1	1	3	12	15	0	4	4	0	5	5	3	21	24
10	1	2	3	3	1	4	0	1	1	1	1	2	0	3	3	1	2	3	1	1	2	7	11	18	1	1	2	2	5	7	10	17	27
11	1	2	3	1	3	4	1	4	5	0	5	5	2	1	3	0	0	0	1	2	3	6	17	23	1	2	3	1	3	4	8	22	30
12	0	2	2	2	1	3	1	4	5	1	2	3	0	4	4	1	3	4	1	2	3	6	18	24	0	4	4	1	5	6	7	27	34
13	1	4	5	0	2	2	0	1	1	1	2	3	1	1	2	2	2	4	1	0	1	6	12	18	1	1	2	0	5	5	7	18	25
14	1	1	2	2	0	2	0	1	1	1	0	1	1	1	2	0	2	2	0	2	2	5	7	12	0	2	2	3	2	5	8	11	19
15	4	5	9	2	2	4	0	1	1	0	4	4	0	2	2	1	0	1	0	1	1	7	15	22	1	2	3	2	1	3	10	18	28
16	0	1	1	2	5	7	2	5	7	0	3	3	1	6	7	1	6	7	2	2	4	8	28	36	1	5	6	1	5	6	10	38	48
17	0	3	3	3	3	6	1	2	3	0	1	1	3	2	5	5	1	6	4	2	6	16	14	30	2	2	4	0	5	5	18	21	39
18	3	3	6	2	1	3	1	4	5	1	0	1	0	2	2	2	0	2	2	0	2	11	10	21	1	2	3	0	2	2	12	14	26
19	0	2	2	3	6	9	0	3	3	1	1	2	0	3	3	1	2	3	1	1	2	6	18	24	2	0	2	1	5	6	9	23	32
20	1	5	6	0	6	6	2	3	5	1	3	4	1	3	4	0	2	2	0	3	3	5	25	30	2	0	2	2	5	7	9	30	39
21	2	3	5	2	2	4	0	2	2	0	0	0	1	4	5	0	3	3	0	1	1	5	15	20	0	1	1	0	3	3	5	19	24
22	0	1	1	2	2	4	1	2	3	2	1	3	1	4	5	1	2	3	0	1	1	7	13	20	0	2	2	0	5	5	7	20	27
23	1	0	1	1	2	3	0	2	2	0	0	0	1	2	3	0	3	3	0	1	1	3	10	13	0	0	0	0	5	5	3	15	18
24	6	4	10	2	2	4	2	1	3	0	1	1	1	2	3	0	2	2	0	2	2	11	14	25	0	0	0	1	1	2	12	15	27
25	0	5	5	2	0	2	1	1	2	0	1	1	1	1	2	0	0	0	0	1	1	4	9	13	0	0	0	1	0	1	5	9	14
26	2	4	6	1	3	4	1	0	1	0	0	0	1	0	1	1	2	3	0	0	0	6	9	15	1	0	1	0	0	0	7	9	16
27	2	1	3	1	0	1	0	3	3	0	2	2	0	0	0	1	2	3	0	0	0	4	8	12	1	1	2	0	0	0	5	9	14
28	1	3	4	1	1	2	0	2	2	0	4	4	0	0	0	0	1	1	1	0	1	3	11	14	1	0	1	1	0	1	5	11	16
29	1	0	1	0	2	2	0	1	1	1	0	1	0	0	0	1	0	1	0	0	0	3	3	6	0	0	0	2	0	2	5	3	8
30	1	0	1	0	0	0	0	4	4	0	1	1	2	0	2	0	3	3	0	0	0	3	8	11	0	0	0	0	2	2	3	10	13
31	2	0	2	0	0	0	2	0	2	0	0	0	1	0	1	0	0	0	0	0	0	5	0	5	0	0	0	0	0	0	5	0	5
32	2	0	2	0	1	1	0	0	0	0	0	0	1	0	1	1	0	1	0	0	0	4	1	5	0	0	0	0	0	0	4	1	5
Totals	33	60	93	35	58	93	20	58	78	12	43	55	23	54	77	23	48	71	18	26	44	164	347	511	33	58	91	23	92	105	220	487	707

RESULTS AND ELIMINATION

	I			II			III			IV			V			VI			VII			Total I–VII			VIII			IX			Grand Total		
	B.	G.	T.	B.	G.	T.	B.	G.	T.	B.	G.	T.	B.	G.	T.	B.	G.	T.	B.	G.	T.	B.	G.	T.	B.	G.	T.	B.	G.	T.	B.	G.	T.
1	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	1	0	1	0	0	0	1	2	3	2	3	5	0	1	1	3	6	9
2	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	1	1	0	1	2	1	3	3	6	9	0	0	0	5	7	12
3	0	1	1	0	1	1	0	2	2	0	3	3	2	1	3	0	3	3	0	0	0	2	11	13	2	4	6	1	0	1	5	15	20
4	0	2	2	0	1	1	1	4	5	0	0	0	0	2	2	0	1	1	1	1	2	2	11	13	4	7	11	2	5	7	8	23	31
5	2	0	2	0	1	1	3	0	3	0	3	3	1	1	2	1	3	4	1	2	3	8	10	18	4	5	9	1	3	4	13	18	31
6	1	0	1	0	1	1	0	1	1	0	1	1	3	3	6	0	4	4	1	0	1	5	10	15	4	3	7	0	0	0	9	13	22
7	0	3	3	0	2	2	4	0	4	0	0	0	1	4	5	1	1	2	0	2	2	6	12	18	2	2	4	0	5	5	8	19	27
8	0	0	0	0	0	0	0	3	3	0	1	1	0	2	2	2	2	4	1	2	3	3	10	13	0	1	1	0	5	5	3	16	19
9	0	4	4	1	1	2	1	2	3	2	1	3	0	0	0	2	0	2	1	1	2	7	9	16	1	6	7	2	6	8	10	21	31
10	0	2	2	1	1	2	0	0	0	1	2	3	0	1	1	3	0	3	0	1	1	5	7	12	0	6	6	2	3	5	7	16	23
11	0	0	0	0	3	3	1	2	3	0	1	1	0	1	1	2	0	2	1	1	2	4	8	12	1	4	5	1	5	6	6	17	23
12	0	3	3	1	6	7	1	1	2	0	3	3	1	2	3	0	0	0	1	1	2	4	16	20	0	1	1	0	8	8	4	25	29
13	0	2	2	1	0	1	0	3	3	3	2	5	0	5	5	0	3	3	0	1	1	4	16	20	0	4	4	2	2	4	6	22	28
14	0	2	2	3	4	7	0	2	2	0	1	1	1	4	5	1	1	2	0	0	0	5	14	19	0	1	1	1	3	4	6	18	24
15	0	1	1	6	8	14	0	0	0	0	2	2	1	1	2	0	3	3	0	1	1	7	16	23	1	2	3	0	6	6	8	24	32
16	2	2	4	1	1	2	0	8	8	0	5	5	1	3	4	0	4	4	1	4	5	5	27	32	0	5	5	0	7	7	5	39	44
17	4	3	7	3	2	5	1	4	5	0	3	3	3	4	7	4	3	7	2	1	3	17	20	37	2	4	6	3	4	7	22	28	50
18	1	2	3	3	2	5	0	5	5	2	2	4	0	6	6	2	4	6	4	3	7	12	24	36	3	1	4	1	9	10	16	34	50
19	1	2	3	0	5	5	1	1	2	1	1	2	0	5	5	0	0	0	2	1	3	5	15	20	0	1	1	2	4	6	7	20	27
20	2	4	6	1	7	8	1	2	3	0	1	1	1	2	3	1	4	5	0	3	3	6	23	29	0	0	0	2	6	8	8	29	37
21	1	4	5	1	1	2	1	3	4	0	3	3	1	3	4	0	5	5	0	2	2	4	21	25	2	0	2	0	2	2	6	23	29
22	0	3	3	2	2	4	0	4	4	0	1	1	1	0	1	1	2	3	1	1	2	5	13	18	0	0	0	0	4	4	5	17	22
23	1	5	6	2	2	4	0	1	1	0	1	1	1	0	1	0	5	5	1	1	2	6	12	18	1	0	1	1	3	4	8	15	23
24	3	1	4	1	4	5	1	2	3	0	1	1	1	0	1	0	1	1	1	1	2	7	14	21	1	1	2	0	2	2	8	17	25
25	0	7	7	1	4	5	0	4	4	0	0	0	2	2	4	2	3	5	0	0	0	3	18	21	1	0	1	0	0	0	4	18	22
26	4	3	7	2	0	2	0	3	3	1	1	2	0	3	3	1	2	3	0	1	1	9	14	23	0	0	0	1	4	5	10	18	28
27	0	2	2	1	4	5	2	2	4	0	1	1	2	0	2	1	0	1	0	2	2	6	13	19	1	0	1	2	4	6	9	17	26
28	6	0	6	2	1	3	0	1	1	1	3	4	2	2	4	1	0	1	1	0	1	13	7	20	0	1	1	0	1	1	13	9	22
29	1	1	2	0	4	4	2	1	3	1	1	2	1	0	1	1	0	1	0	0	0	6	7	13	0	0	0	0	1	1	6	8	14
30	0	1	1	0	0	0	1	2	3	0	0	0	1	1	2	0	0	0	0	0	0	2	4	6	0	0	0	0	1	1	2	5	7
31	2	0	2	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	3	0	3
32	2	1	3	0	0	0	1	2	3	0	0	0	1	0	1	0	0	0	0	0	0	4	3	7	0	0	0	0	0	0	4	3	7
Totals	33	61	94	33	68	101	22	65	87	13	45	58	29	59	88	27	57	84	21	33	54	178	388	566	35	68	103	24	104	128	237	560	797

SECTION III

EARLY PROMISE AND MEDIAN EXPECTANCY OF STAY

ABILITY—MEDIAN EXPECTANCY OF STAY

		Half Left by		Stayed in School
	Boys			
I	Third	March,	1909	6 terms
II	Third	May,	1907	2 terms
III	Third	Sept.	1906	1 term
I	Half	July,	1908	5 terms
II	Half	May,	1907	2 terms
	Girls			
I	Third	Feb.,	1909	6 terms
II	Third	Dec.,	1907	3 terms
III	Third	Dec.,	1906	1 term
I	Half	June,	1908	4 terms
II	Half	June,	1907	2 terms

Marked ability such as would put one in the first third of his or her class has a very strong influence in keeping a boy or girl in school. The expectation by approximate thirds or by approximate halves shows little difference between boys and girls in respect to this characteristic.

Half of the pupils who are ranked in the first third of their class have not left until March, 1909, in their 7th term in high school.

Half of the pupils who are ranked as of average ability have left by May, 1907, in their third high school term.

Half of the pupils ranked as below the average in ability, that is, in the lowest third of their class, leave by September, 1906, after a stay of but one term in high school.

Summarizing these statements one may say, in so far as our records mirror conditions at large:—that the probabilities are that pupils ranked in the lowest third of their classes in Ability will not stay in school more than one term; that pupils of middle or average Ability will stay two but not three terms;

whereas pupils of the first third in Ability will stay three full years or until the early part of their seventh term.

One leading observation which we now may make from our tabulations is that the teachers, who instruct our entering pupils, may be able in the first two months of the pupils' high school work to forecast with considerable certainty the probable length of time which a pupil will stay in high school. On the other hand, we cannot apparently be sure in every case that even a pupil who is rated near the bottom of his class will not stay in school four years, though the chances for his doing so are scarcely more than one in six and the chances for his normal graduation but one in twenty-three.

INDUSTRY

	Half Left by		Stayed in School
Boys			
I Third	June,	1909	6 terms
II Third	Dec.,	1907	3 terms
III Third	Nov.,	1906	1 term
I Half	July,	1908	5 terms
II Half	May,	1907	3 terms
Girls			
I Third	May,	1908	5 terms
II Third	Oct.,	1907	3 terms
III Third	May,	1907	2 terms
I Half	Feb.,	1908	4 terms
II Half	Sept.,	1907	3 terms
Totals			
I Third	Oct.,	1908	5 terms
II Third	Oct.,	1907	3 terms
III Third	March,	1907	2 terms
I Half	March,	1908	4 terms
II Half	June,	1907	3 terms

A study of the median expectancy of stay for pupils who were ranked in Industry shows fairly marked sex differences between the boys and the girls who were ranked at or near either the top or the bottom of their classes.

The expectancy of stay for boys in the first third of their class (the "more industrious" boys) is nearly seven terms, or about two terms longer than the more industrious girls, half of whom have left by the middle of their fifth term in school.

Half of the boys and girls of average or medium industry have left before the end of their fourth term in school, there being no very marked distinction here between the sexes, though the boys stay a month or two longer than the girls.

When we come to consider the pupils ranked in the lowest third of their classes (the "less industrious" pupils) we find that the less industrious girls outlast by nearly a term the less industrious boys. Half of the less industrious boys stay not much longer than one term in school and many of these boys, of course, do not even stay one full term. These are largely the boys who "went to work" during the summer of 1906, and they may furnish a rather interesting side light on the character of service an employer is apt to get when he employs a boy who has spent just one term in high school.

As a whole our tabulations show that the more industrious pupils stay longer in school than the less industrious and yet that the early promise of *superior* Industry is necessary to establish the probability of a stay longer than four terms in high school.

RESULTS

	Half Left by	Stayed in School
Boys		
I Third	Feb., 1909	6 terms
II Third	Sept., 1907	3 terms
III Third	Jan., 1907	2 terms
I Half	July, 1908	5 terms
II Half	Sept., 1907	3 terms
Girls		
I Third	July, 1909	7 terms
II Third	Oct., 1907	3 terms
III Third	March, 1907	2 terms
I Half	July, 1908	5 terms
II Half	Sept., 1907	3 terms
Totals		
I Third	April, 1909	6 terms
II Third	Oct., 1907	3 terms
III Third	Feb., 1907	2 terms
I Half	July, 1908	5 terms
II Half	Sept., 1907	3 terms

The median expectation of stay for boys rated in the first third in Results is February, 1909; in other words, half of these boys have left before their seventh term has well begun. Half of the similarly ranked girls stay a few months later but do not complete their seventh term in school.

The boys and girls of middle or average success (Results) show a median expectancy of staying but little longer than three terms, or about half as long as pupils in the first third.

Half of the girls who were rated in the last third in Results leave before their third term is more than well begun while half of the similarly ranked boys do not quite finish a stay of two terms.

Our pupils rated high in Results by teachers in March, 1906, actually stayed in school *from twice to three times as long* as those with lower ratings in this characteristic, and in this they differed not very greatly from the showing made when the ratings in Ability and Industry were considered. This is an indisputable record of fact with no question of theory involved. One far-reaching question that this record suggests is this: "Could not all the teachers of the entering high school pupils be so instructed in the testing and ranking of pupils in four or five characteristics, not wholly matters of school record at present, that their combined judgment could be used in reclassifying the entering pupils on the basis of their probable length of stay in high school?" But to estimate the pupil's stay is only half and so again we may from our records suggest another question: "Could not the ratings of skilled teachers be again employed in re-assigning pupils to courses better fitted to each pupils ability, his length of stay, his future aspirations and his promise of accomplishment than the courses which these pupils first select?"

It will be urged in objection to such a plan that each pupil has, if he is allowed to enter high school at all, the right in theory to a presumption that he will graduate. Every entering pupil is in theory presumed to be able to graduate until proved unfit by final elimination from school. To re-assign or force out a pupil would be unjust.

On the contrary, it may be equally well urged that whatever be the presumption in theory, in practice (since but one in eight or thereabouts really ever graduates) the presumption from the start is actually against every pupil, until he proves himself the one in eight who can finish the course he is just beginning.

On the whole such a re-classification of all entering pupils at the end of the first half or first third of their first high school year, while it might work injustice to some few pupils, would, for the great majority of those who enter, be of unquestioned advantage. The great number of pupils, from five-sixths to seven-eighths, whose high school efforts are unproductive of any tangible resultant benefits at present, would find themselves making definite progress toward a near and an attainable goal.

Of course, such a re-classification would have to take into consideration each pupil's (and his parents') estimate of his intended length of stay and his choice of future occupation, as well as the teacher's estimate of the pupil's early promise of endurance and efficiency; but we have seen that it is possible to secure these measurements and their proper combination could also be worked out as the result of study and experiment. One assumption, however, is necessary even to the primary consideration of such a plan. That assumption is that the pupil who cannot graduate in our present courses (after he has been allowed to enter them) is still worthy of some secondary education at the public expense. If this assumption be granted there can be no question but that the organization of new courses, short, unified and graduated in difficulty, are necessary so that we may have suitable work to which our re-classified pupils may be assigned.

Not all students of education, however, will admit that it is right for the state to furnish free secondary education to all who would attempt it. For this reason they say we set up entrance requirements and from the first day of school set in motion a *sifting* process which through the four years of assigned work is to sift the pupils who will be the future leaders from the pupils incapable of further profitable education. Granted for the moment that such a sifting process be most desirable and that to produce "graduates" is the only worthy aim of secondary education, what do our records show? Our records apparently teach us that a more crude, inefficient and wasteful method of *sifting* could hardly be devised. Imagine if you can a grain merchant who would use a threshing machine which threw out with most of the chaff over two-thirds of the good kernels! And yet this very process of waste is apparently going on in our high schools to-day. Of our thousand pupils at best more than half of the more able, industrious and successful boys and girls were not saved for graduation or even kept in school four years.

It will not do for the critic of our local conditions to lay the blame on the New York City schools, for nowhere in America, if indeed in the English-speaking world, are the high school teachers more carefully selected or much better paid than in New York City to-day. It may yet be insisted and with considerable show of evidence that the high school pupils whom we studied are not up to the standard of the country high schools or to those of cities further from the influences of foreign immigration. Yet if one admits that our children of native born parents are not far below the standard of the children in other cities, he is confronted with the proof that a very large fraction of the children of foreign born parents do the New York City high school work as well as, if not a shade better than, the children of the native born.

The waste which characterizes the sifting process in New York City is typical of a situation which is not local or individual. The high schools are being crowded with thousands eager for some taste of secondary education, among whom are a few who can and will work forward to successful graduation under the present sifting process. Yet with these, who can and will, are more, who can but *will not*, because our process of selection or sifting is crude and defective: and so we lose this latter, equally good, material through the inefficiency of our present methods of selection. If *sifting* be our chief aim enough has been shown, it would seem, to suggest the possibility of so hastening this process that surely not half the space nor half the teachers nor half the yearly outlay of money would be needed to provide a course to graduation for all who will use it under present conditions.

SECTION IV

PUPILS WHO STAYED FOUR YEARS BUT DID NOT GRADUATE (RETARDED PUPILS): GROUP IX

Ability and Retardation

Our Group IX, the retarded pupils, or pupils who stayed in school four years without graduating, contains 23 boys and 89 girls who were given rankings in ability. Without printing a very complicated table it is impossible to show the relation between these ratings and the degree of advancement of these pupils in their course. Many of these retarded pupils have only fallen behind one term and will undoubtedly complete their course in one or two terms more. Quite a number, however, have not yet completed three years work and of these it is probable that few or none will graduate. Reserving a fuller discussion of this subject for publication at some future time, we may at least state that successive promotion from grade to grade is a characteristic of those ranked high in Ability, while those among our retarded pupils, who fail most often to gain promotion, come from our lowest third in Ability.

One-half as many of our 1st third in Ability are found in the retarded group as in the group graduated on time. From the middle third in Ability, twice as many are retarded as are graduated on time. From the lowest third nearly four times as many are retarded as are graduated.

From this comparison we might say that on the basis of the ratings in Ability made by teachers in the first two months of a pupil's high school course, we may apparently forecast with a considerable degree of accuracy the *probability* (but not the certainty) of a pupil's retardation, and subsequent ultimate graduation or elimination.

Industry and Retardation

In Industry our original "Thirds" for all graded boys were I—64, II—80, III—76; our retarded group shows I—8, II—7, III—8. Our original "Thirds" for girls were:—I—166, II—170, III—151; our retarded group shows I—31, II—30, III—21.

From this one might say that although fewer both of the average and of the less industrious boys, and more of the average and of the less industrious girls stayed four years without graduating, still on the whole neither industry nor the lack of it played any very great part in retardation.

On the other hand, when we consider the previous eliminations and the graduations from each group, we find that our figures may possibly have a somewhat different significance leading one to believe that industry, as we recorded it, has perhaps some significance in retardation after all. For the exact figures the reader is referred to the tables, or to the discussions under Elimination and Graduation (in the two preceding sections). The probability is that the retarded group is made up of a more or less definite selection within the thirds. From the first third will come those whose steady progress toward normal graduation was interrupted by absence or by outside duties or interests; from the average or middle third will come those who have chosen a career for which high school graduation is necessary, but who are unable to do the work required for graduation in the normal time; from the lower or less industrious third will come those whose parents are financially able to keep their children in school regardless of promotions and who themselves may cherish social rather than intellectual ambitions.

To a certain extent these facts are true in the case of Ability and Results also. It must be repeated, however, that our ratings do not establish as facts the selections referred to, but only, when taken in consideration with several other measurements, suggest them.

RESULTS AND RETARDATION

One hundred and twenty-eight of our retarded pupils were rated in Results at the beginning of their school course, 24 boys and 104 girls. About 12 per cent of our retarded boys are from the first third in Results, 58 per cent of whom have graduated. About 7 per cent are from the last third in Results, 7 per cent of whom also have graduated.

We have so few retarded boys that generalizations seem unwise but investigation of several particular cases has suggested that *athletics* in boys' schools has served to retard several of the boys rated high in Results as well as to keep in school many of inferior Results who would have dropped out of school had it not been for their interest in the athletic teams. On the whole, however, our percentages show for the boys a reasonable distribution on the basis of early promise.

Our retarded group contains about 19 per cent of the girls who were superior and 16 per cent of the girls who were inferior in Results. So far as the girls are concerned we may note with surprise that there is so small a difference between the percentage of retarded girls who were ranked high and the percentage of those who were ranked low in Results. That apparent similarity, however, is explained when we note that our girls, who were rated high in Results, graduated a large number (47 out of 171) while those who were rated low in Results graduated almost none (2 out of 179). Many of our retarded girls will undoubtedly graduate in one term more, but most of those rated low in Results who make up a large fraction of our retarded group, we may with certainty affirm are so poor in early promise that we cannot reasonably expect that they will graduate under any conditions, no matter how long they stay in school. It is an open question as to whether or not these girls should be allowed to remain in school to act as a drag upon the work in their various classes, to discourage teachers and perhaps to lead the younger pupils, who overtake them, into habits of indifference.

Some parents will insist that their children stay in high school whether or not they make progress there. These children make up a large fraction of our retarded group. However, these non-promoted children who stay in school do not get from the high school courses (as at present arranged) very much of benefit to themselves or to their parents who wish them to be profitably employed. The composition of our retarded group strongly suggests the necessity for the arrangement of courses where girls (and boys too) whose parents insist on keeping them in school (or who themselves insist on staying in school) may find work which is interesting, profitable and suited to their less capable or less energetic natures.

We cannot, or should not, forbid all free secondary education to taxpaying parents whose children fail to maintain a certain standard of efficiency in certain narrowed lines if it can be shown that these pupils are capable of progress in other equally useful lines not now provided. On the other hand, we may consider it fair to force out of the public high schools the children who are sent there by parents merely "to keep them out of mischief" while they are growing up.

One final point should be mentioned while discussing this subject of retardation and that is that a study of the rentals paid by the parents of the retarded group (and especially by those retarded girls who give no promise of graduation), shows the extreme improbability of any relief being secured through vocational schools or courses. These parents would not send their children (it may be fairly safely averred) to anything which suggested a trade school. That which they apparently seek for their daughters is added cultural information and not preparation for future employment outside of the home.

On the whole the pupil who stays four years but fails in this time to graduate was recorded by his teachers (at the beginning of the course) as much less able, and less industrious than those who graduate in normal time. Furthermore, these retarded pupils are about as able and as successful, but more industrious than the average entering pupil. The boy or girl who stays in school four years without graduating is differentiated from the average entering pupil chiefly by his more frequent expectation of staying for the full course and more frequent choice of a future occupation for which the course is necessary, together with more favorable financial conditions at home.

SECTION V

PUPILS WHO GRADUATED: GROUP VIII

PER CENT OF GRADUATES, BY ABILITY

in Approximate Thirds

	GRADUATED	TOTAL GRADED PUPILS ENTERING	PER CENT OF THIRD GRADUATED
BOYS			
I Third	23	71	32.4
II Third	5	79	6.32
III Third	6	69	8.6
GIRLS			
I Third	47	164	28.7
II Third	16	192	8.33
III Third	4	165	2.42
TOTAL			
I Third	70	235	29.8
II Third	21	271	7.74
III Third	10	234	4.27

ABILITY AND GRADUATION

A careful study of the ranks of our graduating pupils shows at once that the more able pupils graduate in nearly four times as large numbers as do either those of average or mediocre ability. Thirty-two and four-tenths per cent of the brighter boys and 28.7 per cent of the brighter girls graduate on time. Of the boys and girls of average or medium ability 6 per cent of the boys and 8 per cent of the girls graduate. Of the children rated as of comparatively inferior ability 8.6 per cent of the boys and only 2.4 per cent of the girls graduate on time, here giving evidence of a very marked contrast. The showing of the boys of inferior ability is noteworthy in that they are better represented at graduation than those ranked medium in ability. Furthermore, the boys of exceptional ability, while they stand four times or over as good a chance of graduating as those beneath them in ability, still do not have the high representation we might perhaps reasonably have expected. This is seen more clearly when we note that *two-thirds of the boys ranked as of more than average ability are not included in our graduating group.* In other words, we have lost two-thirds of our brightest boys and preserved not far from one-twelfth of the total medium and duller boy pupils.

The brightest girls sustain a somewhat greater loss (71.3 *per cent*) though the least able girls are almost entirely lacking in representation, sustaining a loss of about 98 per cent.

PER CENT OF GRADUATES, BY INDUSTRY

In Approximate Thirds

	Graduates	Total Graded Pupils Entering	Per Cent of Third Graduated
Boys			
I Third	20	64	31.1
II Third	8	80	10.0
III Third	5	76	6.57
Girls			
I Third	36	166	21.08
II Third	18	170	10.58
III Third	4	151	2.64
Totals			
I Third	56	230	24.3
II Third	26	250	10.4
III Third	9	227	3.9

INDUSTRY AND GRADUATION

In Industry somewhat the same conditions obtain as in Ability just discussed. The more industrious children are represented by 31 per cent boys and 21 per cent girls. The girls and boys of average industry show about one-tenth graduating. The boys of less than average industry graduate but 7 per cent of their number though nearly three times as many in proportion as the less industrious girls.

From our tables the more industrious boys as well as the less industrious boys make a much better showing than similar girls, but for several reasons we may do well not to lay too much emphasis on this apparent sex difference.

PER CENT OF GRADUATES, BY RESULTS

In Approximate Thirds

	Graduates	Total Graded Pupils Entering	Per Cent of Third Graduated
Boys			
I Third	23	77	29.87
II Third	6	74	8.1
III Third	6	86	6.97
Girls			
I Third	47	171	27.5
II Third	19	210	9.04
III Third	2	179	1.11
Total			
I Third	70	248	28.4
II Third	25	284	8.8
III Third	8	265	3.01

Results and Graduation

Among the boys there is not any very noticeable difference between the conditions already described under Ability and those shown under Results. Among the girls there is however a rather marked improvement in the relative number who graduate from the first third in Results. Perhaps the most striking point about the girls' graduation is that scarcely more than one in ninety of those ranked as of inferior Results has graduated on time.

On the basis of Results, taking boys and girls together, we may say that approximately one in three of those of superior Results will graduate on time; one in eleven of those ranked as of average Results will graduate on time; while of those ranked as of inferior Results one in fourteen of the boys and one in ninety of the girls will graduate on time.

It is a serious question as to whether in the last case it is really wise, and just to the taxpayer, to carry along over ninety girls of inferior Results so that one may graduate. The saving which could be effected by excluding at once all girls of inferior Results would be obviously very great.

Taken as a whole the figures given in the tables show that pupils, either boys or girls, who are ranked in the first third of their class in Ability, Industry or Results stand a decidedly better chance of graduating than do the pupils in the lower two-thirds of their respective classes. There is, however, a slight sex difference which would seem to indicate that the more able, industrious and successful boys (from a school standpoint) graduate in slightly larger relative numbers than do girls of similar capabilities.

The group of graduating pupils contains 32.4 per cent of the boys of superior Ability, 31.1 per cent of those of superior Industry, 29.9 per cent of those of superior Results. The same group contains 28.7 per cent of the girls of superior Ability, 21 per cent of the girls of superior Industry, 27.5 per cent of the girls of superior Results.

Boys and girls, ranked on entering as belonging in the middle of their classes, graduate in about the same relative numbers. Pupils of this medium Ability, Industry and Results, apparently do about one-quarter as well as those of the first third. In other words, a pupil in the first third of his class has about four times the chance of normal graduation that the pupil has who is the second third of his class.

When we come to consider the boys and girls who were ranked in the lowest third of their classes, we find a very marked sex difference. The boys who were ranked in the lowest third of their classes furnish relatively almost as many graduates as do the boys of the middle third. This of itself is surprising for we might not expect that the less promising boys would last nearly as well as the "average" boys, yet they appear to do so.

The girls, on the other hand, who were ranked in the *lowest* third, do not do even one-quarter as well as the "average" or middle girls.

Taking the boys and girls together and combining Ability, Industry and Results, pupils ranked in the first third of their class will graduate in three times the numbers that will represent the middle third and about seven times the numbers that will represent the lowest third.

Looking on the Darker Side

If we consider these same figures from the opposite viewpoint, that of elimination, we can see that over two-thirds of those rated as the most promising of the pupils entering high school either do not graduate at all or do not graduate on time. Probably at most not half of the *best third* or "more promising" pupils ever finish the course.

The average or middle pupils will show an elimination or retardation of about ten-elevenths (10/11).

The less promising boys will also show an elimination or retardation of about eleven-twelfths (11/12) while approximately forty-nine-fiftieths (49/50) of the less promising girls will fail to graduate on time, if at all.

Having in mind the figures we have just briefly considered we are forced again toward the conclusion that under proper conditions, with a properly tested list of characteristics, it may be possible for trained teachers to make a series of mental measurements during the first two or three months of a pupil's high school course which measurements could be used to determine in advance, with a very great degree of accuracy, the pupils who will or will not finally meet the qualifications necessary for graduation.

This investigation which we are now following was inaugurated by teachers who had previously had no special training in the grading in sequence of pupils on characteristics not directly connected with school work. Yet these ladies and gentlemen have, to take a single especially favorable example, graded about five hundred girls on Results. Two hundred or so of these girls were rated as noticeably less efficient than most of the others. From this less efficient group, determined in February and March, 1906, *only two girls graduated* in January, 1910.

The direction in which these facts point is too plain to be overlooked. If our co-operating teachers can prophecy with such accuracy in the case just described, it is certainly within the range of probability that others may be trained to do so, and that if the elimination of the inefficient be one of the aims of the high school, two months may suffice in the future to make the selections which it now takes four years to complete.

Those who claim that the only purpose of a high school is to produce graduates should hail with delight a plan which would not lessen the number of graduates but still would save the City of New York at the very least one-third of its annual expenditure for Secondary Education.

PART VI

FIRST TERM'S MARK

ELIMINATION, GRADUATION, RETARDATION

As has already been stated, transcripts of the school marks of our recorded pupils were kept in connection with our study of the semi-annual promotions. These marks furnish us with another measurement which is possible of analysis as a factor in elimination.

However, one difference exists between this factor and all the others. This factor of school marks is a record of school success or school failure. It is distinctively a *school* record and not therefore an impartial measurement or one independent of school bias as most of the others such as age, nationality, rental, etc., are.

The term mark will show whether or not a pupil has for the term fulfilled the school requirements. There is, however, no indication of why he fulfilled them or why he did not do so. Indifference on the part of the bright pupils, incapability on the part of the duller ones, may show itself in the same identical per cent at the end of the term. For example, 50 per cent may mean that a bright pupil wilfully neglected his work, or it may show that a dull pupil, doing his best, could not cover the assigned work in a satisfactory manner. Moreover a reasonable amount of success in school may be a necessity for those who would remain in school, for the pupil doing no work would be forced out. So far as this is true we should expect that those who stay in any school would in the majority of cases not drop far below the passing mark, which is 60 per cent in the New York City high schools.

On the other hand, if a pupil decides to drop out, but has as yet no position immediately in view which attracts him, we might expect, unless the pupil were most unusually conscientious, that this pupil would more and more neglect his school work while still attending school somewhat regularly and that his last school rating before he finally leaves would be his worst. This indeed is much the situation which our records disclose. A few pupils of those dropping out finished well but always as many or more finished poorly.

That in about half the cases of those eliminated, the last recorded school mark is a poor one does not of itself prove that half of the pupils who dropped out shortly after receiving this mark were forced out by inability to do their work and by failure in their lessons. All that this mark shows is that the pupil did not do his work whether or not he was able to do it. Indeed the drop from a succession of satisfactory percentages to a very low one just before elimination would seem to indicate in such cases that the pupil, perfectly able to do his work as satisfactorily as he had done it in the past, neglected his last term's work because his interests were outside of the school he soon expected to leave. We cannot therefore believe that a low mark just before leaving is the only factor which forces a pupil to leave school. This knowledge will tend to weaken the argument for making the initial courses very easy so that all or nearly all will pass in the first term's work and so be induced to continue in school.

However, nothing that has been said must be construed to mean that difficulties in the studies pursued do not force many pupils to leave. Our point is, that this difficulty is not all-compelling and that our records show that pupils who find no difficulties in their school work still leave in very large numbers.

First Term's Mark

The progress of our recorded pupils necessitated transcribing approximately 5,000 term marks with several thousand other subject marks in the total. The one mark of all these pupils which may most interest us is the mark assigned at the close of the first term of high school work.

By the first term's mark we mean the combined mark showing the pupil's average standing in all subjects at the end of the first term. This mark is usually secured by multiplying each final subject mark by the number of periods per week that subject is given in the course, adding all such products and dividing by the total number of periods of recitation which each pupil attends each week. The individual subject marks are usually the result of combining recitation marks for the term with a final examination mark, the former counting two-thirds (⅔) the latter one-third (⅓). All schools are not obliged to follow this plan, there being allowed considerable individual freedom in making up the term's mark, save that the minimum passing mark in all schools is 60 per cent.

Not all of our recorded pupils received a mark for the work of their first term. Some pupils were absent either from some of the final examinations or from all of them, even though these pupils continued afterward in school. Other pupils left school permanently before their final term mark was assigned. In the cases just mentioned wherever the class marks could be secured the combined mark was calculated by an assistant and recorded as "the last (combined) mark assigned before the pupil left school." These additional marks, though not a matter of school record, were still considered to be trustworthy evidences of the character of the pupil's work in school, and so were included in our tabulations if the pupil stayed until about the time of the final examinations in June, 1906.

Because our pupils received a term mark based on an absolute standard 0-100 per cent and not a rank in sequence (as in our Early Promise gradings) it was difficult accurately to combine them into groups based upon the marks given by the different schools concerned. Even a brief study of the marks by schools would suggest to the observer that there are schools in which the same pupils putting forth the same effort in their work would receive a mark ten or fifteen per cent higher than they would if registered in other schools. The median mark of all the recorded pupils, to take the extreme case, in one

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[NOTE.—The supposition of one school that an easy first term of work with high marks for average success would influence a pupil to remain longer in school is in part borne out by the records. Still we must bear in mind that the character and intellectual standard of the community from which a high school draws its pupils is also a factor in encouraging those pupils to persevere in their studies. We cannot, however, overlook the fact that the high school whose first term marks are unusually complimentary, graduates at the end 22 pupils while the school whose marks seem unnecessarily severe graduates but 9 pupils; moreover, the former school keeps 30 retarded pupils in school as against 20 kept in the school where the marks were unusually low.]

school is 77 per cent and in another 62 per cent. This was not chance, but a part of the policy of the schools in question in 1906.

INTRODUCTION TO TABLE OF MARKS

In order to show this range in the first term marks assigned in different schools, we print a table of these marks by schools.

It was at one time planned (in order to bring all schools to a common average scale) to reduce or increase the marks assigned in certain schools by a definite factor so that all medians would coincide and that 68 per cent for example, would have the same significance in all cases. Again the plan of throwing out the extreme schools was considered, thus leaving the others whose medians now almost agree. After considerable study, however, it was decided to leave all marks just as they were originally assigned and to treat them all alike, believing that as matters of school record, they should be taken at their face value in this investigation.

FIRST TERM'S MARK, BY SCHOOLS

SCHOOL	MED.	0–49 PER CENT	50–59 PER CENT	60–69 PER CENT	70–79 PER CENT	80–89 PER CENT	90–100 PER CENT	TOTAL
A.........	62	20	32	30 M	14	8	2	106
B.........	64	19	15	30 M	20	13	0	97
C.........	64	13	7	18 M	16	3	0	57
D.........	64	11	8	19 M	15	1	1	55
E.........	64	11	24	44 M	27	6	1	113
F.........	65	12	21	39 M	28	11	4	115
G.........	66	8	14	29 M	27	5	0	83
H.........	68	2	8	17 M	14	9	1	51
I.........	68	10	6	12 M	17	7	1	53
J.........	72	4	7	22	28 M	18	0	79
K.........	77	5	0	16	35 M	36	7	99
Total....		115	142	276	241	117	17	908

The tables that follow show the relation of the first term's mark to length of stay and grade reached.

FIRST TERM'S MARK AND LENGTH OF STAY

GROUP	I	II	III	IV	V	VI	VII	GRAD.	RET.	TOTAL
MARK										
0– 49........	14	33	23 M	9	16	9	4	0	7	115
50– 59........	22	29	17 M	9	17	16	10	7	15	142
60– 69........	25	41	41	26	30 M	38	16	8	51	276
70– 79........	10	20	17	20	36	27 M	23	43	45	241
80– 89........	2	6	12	11	12	2	12	43 M	17	117
90–100........	0	0	1	1	1	2	1	9 M	2	17
Totals......	73	129	111	76	112	94	66	110	137	908

FIRST TERM'S MARK AND GRADE FROM WHICH PUPILS WERE DISCHARGED ("PROGRESS IN THE SCHOOL COURSE")

MARK	1A	1B	2A	2B	3A	3B	4A	4B	CER.	GRAD.	TOTAL
0– 49	70 M	23	12	3	0	0	0	0	0	0	108
50– 59	54	34 M	17	8	5	2	0	0	1	6	127
60– 69	41	100 M	28	22	19	6	1	0	1	7	225
70– 79	12	49	27	28 M	15	13	5	4	6	37	196
80– 89	2	22	9	11	1	3	7 M	2	1	42	100
90–100	0	1	1	2	1	0	0	1	0	9 M	15
Totals	179	229	94	74	41	24	13	7	9	101	771

0-49 Per Cent

Of our nine hundred and eight graded pupils one hundred and fifteen pupils received a mark below 50 per cent for their first term. Half of these pupils left by or before the beginning of their second term in school. Of those who remained seven stayed for four years, but not one pupil rated 0-49 per cent advanced beyond the 2B grade in all that time. The majority of all pupils of this mark did not even complete the work of the 1A grade.

50-59 Per Cent

As was the case in the previous group, half also of this group of pupils, rated 50-59 per cent, left by or before the end of their first term in school; but in this group, because some were promoted on trial, half finished the work of the 1A grade and were privileged to begin the 1B grade work.

Of those that remained although most went no further than 2A, still a few advanced to 2B and two even reached 3B. One pupil received a certificate of four years' work, one actually graduated in a four years' course, and five others (after repeating 1A) graduated in a three years' technical course. Of the entire 142 pupils, however, only one pupil graduated in a four years' course within the established time.

60-69 Per Cent

The range of marks which included the largest number of pupils was 60-69 per cent, the lowest range of marks which included pupils who were unconditionally promoted. There are 276 pupils in this group, or more than as many as are found in the ranges 0-49 per cent and 50-59 per cent combined. The median length of stay for these pupils is a fraction over three terms in school. Of those that do remain, however, 59 stayed for four years though only 5 out of 276 graduated in a four years' course, one received a certificate, and two graduated in the three years' technical course. Of those who stay no longer than four years, the median grade of advancement (in a median stay of three terms) is but one term's work completed. More than half fail to complete even the work of 1B.

70-79 Per Cent

But little smaller than our 60-69 per cent group is this group of 241 pupils included in the range from 70-79 per cent. This range on the whole includes the pupils upon whom the teachers have set the stamp of, at least, moderate approval and in one school the stamp of rather marked success. Half of these pupils do not leave before the end of their fifth term in school. Of this group 111 pupils stay six full terms in school and of these 43 graduate or receive certificates in four years while 45 remain in school after four years as retarded pupils. Of those who leave at or before the end of four years (including the graduates) the median grade of advancement is but 2B.

80-89 Per Cent

Taking all the schools together about one pupil in eight receives a mark high enough to be included in the range 80-89 per cent. With the possible exception of one school, the mark 80-89 per cent for the first term is one of unusual merit.

Of the 117 pupils included in this range just about half stay for the entire four years and of those that stay, 43 out of 60 graduate on time. Of the pupils who stay but four years or less, the median expectation of advancement is the 4A grade.

90-100 Per Cent

Out of 908 pupils who were recorded but 17 received a mark of 90 per cent or higher, that is, as a rule, but one pupil in 53 reached this degree of proficiency. Of these seventeen, nine graduated on time, in four year courses, while two remained in Grade 4A at the end of their four years' stay. The median expectation is graduation at the end of a four years' stay in school.

CONCLUSIONS

One suggestion that some observer of our tables might be led to make is the possibility of economy in the expenditure of school moneys. If this observer holds, as some will, that the paramount if not the only purpose of the high school is to turn out graduates, we have in this table the evidence that from one-half to three-quarters of our annual appropriation might be saved by a rigid process of exclusion applied at the end of the first term. Such a system of exclusion indeed has precedent in the methods used by the Federal Government at Annapolis and West Point.

Now as to the basis for this exclusion. If all boys who failed to get at least 50 per cent for their first term were at once expelled we would lose none of our graduating group.

If all boys who failed to get 60 per cent were expelled we would lose but one in fourteen of our graduates. For the girls (omitting the five below 60 per cent who graduated in a three years' course) we could draw the lines at 60 per cent and not lost a single four-year-course graduate. By doing this we could at once rid the schools of thousands of girls who in the very greatest probability will not graduate on time, if at all.

Even if our passing mark were to be raised from 60 per cent to 70 per cent, and pupils who did not reach this latter mark should be forced to leave school at the end of their first term, we should lose but seven of our graduates in a four years' course. Such a measure of exclusion, while it would have lost us about 7 per cent of our four year graduates, on the other hand would have cut our register at the end of the first term, from our entering thousand down to about 375, a saving in space, text-books and instruction of at least 50 per cent for the second term. Moreover if the standard of 70 per cent were known in advance to be in force it is quite probable that those who have the ability to graduate would reach that standard, and we should not lose even 7 per cent, probably not more than 1 per cent or 2 per cent of our future graduates, by raising the passing mark.

Even after we have cut down our entering classes at the rate of 625 in every thousand we still have not excluded those, who though they reach the required passing mark, had no intention of completing their high school course. Consequently, these pupils not agreeing with the narrowed aim of "making graduates" which we have for the time assumed, may also be forced out in order to put our "business of graduating pupils" on a business basis. But still we have other tests which we may apply, *viz.*, the age at entering, fathers' nationality, occupations of parents and of older brothers and sisters, pupil's choice of life work, rent paid by parent, etc., etc., which, when the combined evidence is strongly against the pupil, could be made the basis of exclusion. So combining all our evidences of Early Promise, we might cut our entering thousand to probably not more than two hundred and still not materially lessen the number of graduates which we turn out to-day.

If, then, we take graduation in four years or simply graduation in any length of time to be the sole purpose of our high schools we may (1910) calculate for New York City a saving of from one to one and a half millions of dollars, for if to the saving in instruction we add the saving from the lessened space required for our reduced registration, the saving in buildings, janitors' salaries, lighting and heating and finally in text-books and supplies, we can place our saving at from fifty to seventy-five per cent.

To-day what do we have as an argument in answer to this proposed economy? Merely our statement that the pupils who do not graduate are benefited by their longer or shorter stay to an extent which warrants the expenditure of this extra million or two each year. And yet for whom are the schools planned? Toward what else than graduation or college preparation do most of our four-year-courses tend?

If, as our study of rentals seemed to show, the New York City high school is really a people's college, and not a college preparatory institution in the main, what preparation have we made for the proper education of those who cannot expect to graduate?

The argument which has been advanced for shorter courses, unified courses, popular courses (in the best sense), courses which are informational and cultural rather than scholastic and disciplinary, becomes very strong when we consider the question of total expense with the resultant showing of graduates.

If we are to graduate only in the neighborhood of 12 per cent of an entering class and if this graduation is the main purpose of our schools, then any measurement which will show us how to save 88 per cent of our annual expenditure should be welcome.

If, on the other hand, we believe in advancing each pupil just as far in secondary education as that pupil is able or willing to advance, may we not spend this 88 per cent of our money to better advantage than by trying to make "graduates" out of those who cannot or will not follow to completion the courses we have planned? Particularly in this connection we should remember that our records, while they show the graduates to be largely of a superior mental type, still show that *the great majority even of our most promising pupils do not remain to graduate.* On the basis of Early Promise in Ability, Industry and Results, we find that in four years we have lost to graduation two of the most able, industrious and efficient pupils to every one that we have graduated. If graduation be still our only aim, is there not need on this showing to so modify our graduation requirements as to keep for graduation more of those whose early promise is superior in character?

On the other hand, if the majority of our most promising pupils will not under any circumstances remain to graduate (and such on the surface appears to be the case) is it not due these pupils to open to them courses which are especially designed for their needs entirely apart from our idea of the needs of those who will graduate in such courses as are already in existence?

Some have supposed that by planning a course of a certain length (say four years) they could induce more pupils to stay in school to complete such a course and so to reap its resultant benefits. There is no doubt that many of the longer courses have been planned largely if not wholly with this proposed benefit as the controlling motive of the plan. With the praiseworthy motive of such a plan few can disagree, but with its working-out in practical service we are forced to disagree because we do not find that it increases the length of stay in proportion to the elimination it causes.

To be sure, when all is said and done there are those thoughtful and sincere students of education who will maintain that there is as much benefit secured from a half-finished four years' course, as from a completed course originally planned for only two years. These students will maintain that the value of the training and discipline of the course is its chief if not only value and that it makes little difference what subject be studied or how far this study be pursued, provided only that the methods of instruction and of study be of the right sort. One may find that these students of education for the most part neglect the causes which have led to the original introduction of each subject into the course of study. These students may perhaps be led to see that all the subjects taught in our secondary schools were put there because, at one time or another, students wished (or their parents compelled them) to learn something about the subject *itself* and not primarily because of the discipline the subject gave. The disciplinary theory of education is fast disappearing from modern thought, yet even where it remains entrenched it is hard to find in it a solution of the following situation.

Granted that great benefit may come from the training and discipline gained in the study of a subject, even when the information that subject gives is useless, can it not be urged that *greater* value and benefit may come from the study of a subject which while it provides training and discipline, still provides, in addition, *information* which is itself of value and benefit.

Few will claim that our four year courses the country over have been planned with special reference to the needs of pupils who can stay but one year, yet the majority of our entering pupils complete no more than one year's work no matter how long they stay in school. Roughly, half of those who complete one year of their course do not complete more than two years, but we find no course in most public high schools *especially* planned for those who can stay no more than two years.

Does it not seem reasonable to suggest, even if we keep our present four year courses unmodified, that we also plan other courses different in scope and subject matter for the pupils who will stay but one year and still another course for those who will stay but two years? To be sure, it may be possible to make each year's course a rational unit of work and still to plan a succession of yearly courses with each course complete in itself and yet all so planned as to form parts of a harmonious whole. The danger in such a plan lies in the sacrifices that each unit is almost sure to make so that the harmony of all the courses be maintained. Supposing that a student wishes to gain some introductory notion of modern science, will the chemistry, for example, of such a shorter course be that which would be taught a pupil who will stay for four years and who may be able to pursue a thorough laboratory course in that subject? Will the pupil, whose entire survey of the field of Latin literature and history must be gained in one year, be set to work memorizing declensions, conjugations, and rules of syntax in the same way as will the pupil who carries his study of Latin into the college? Similarly in history and mathematics, great difficulties lie in the path of one who would try to kill two birds with one stone. Unless each aim and each course be distinct there is extreme danger of missing entirely the purpose of either course.

Again there is the problem of thoroughness and organization. There is as much danger in too broad and too shallow courses as in those too narrow and too deep.

The one who tries to give a bird's-eye view, in one year, of many years of work may find that in his one year's course he has taught so much, that he has taught little or nothing that will stand the test of time. The formation of shorter courses is not a task to be entered upon lightly nor without serious study and experimentation. Surely no one will from theory find the solution at once. The method of experimentation must replace our present too dogmatic methods. Even the trial of one year should lead to improvements the next year. No one may maintain that a course of study once published is therefore perfect and immutable; but rather that each course is tentative, open to annual revision whenever the discoveries of a year warrant such action, and, at the outset particularly, we should believe that such revision would be warranted annually for a series of years.

Economy and efficiency far beyond our present possibilities will follow the early elimination of those who show themselves totally unfit for secondary work. But a still greater economy, which is constructive rather than destructive, will follow the re-assignment of those who are retained in school, to courses which they may pursue with unquestioned profit to themselves and to the community.

PART VII

THE HUMAN SIDE

SECTION I

INTRODUCTION

In connection with the work of the investigation the investigator was often brought into a more or less personal acquaintance with a number of the recorded pupils. As a result of this acquaintance, there was perhaps unusual opportunity for studying the high school as seen from the pupils' viewpoint as well as from the viewpoints of parents and friends of the pupils. Such observations did not in any exact sense form a part of this investigation and differed from our observations proper, in having always a personal bias and being so tinged with a variety of influences as to be incapable of scientific classification with subsequent logical deductions. Nevertheless these observations showed certain situations to be sufficiently frequent to permit of their statement in general terms even though they might not be supported by exact references.

Because of their interest to students of the high school situation and because of their indirect bearing on the particular subject of this investigation, the Elimination of Pupils from High School, it was finally decided to group these often unrelated observations in a summary, which while it formed no part of the investigation proper, still might properly be added to the more statistical studies already given as at least suggesting other topics which will have to be more carefuly studied before we can approximate an unquestionably complete explanation of the main problem which we have in mind.

At least seventy-five per cent of the pupils who enter have the brains, the native ability to graduate if they chose to apply themselves. They come from homes where there is no intellectual tradition of study for study's sake. They feel the pressure of limited means, parental sacrifice, narrow living, if not the pinch of poverty. They desire to be independent financially of the home, to help with the rent, to buy their own clothes. They see no use in the high school as a means to a better livelihood. They want a little pleasure in living, some time to play, to visit with their friends, to enjoy themselves in their own amusements. Study to them is not a pleasure, it is the hardest and most disagreeable kind of work. They lack the faith to see in it a road to better things. They do not know personally men and women who are high school graduates, save only their teachers. The lives of the men teachers seem exacting and profitless to the boys. Few indeed desire to emulate them.

To the girls teaching is the one most attractive occupation in case they do not marry; but on the other hand, it is too great a waste of energy and labor to prepare to teach when a girl expects to be married at twenty or twenty-two.

In an office or a store girls and boys may earn their own living working at daily tasks far easier than their high school lessons and still have their evenings for fun and frolic without fear of failure the next day. Moreover the home conditions, aside from the different intellectual levels which they may represent, are on the whole directly in opposition to the isolation and abstraction which the high school studies demand. A quiet room alone, freedom from distracting or annoying interruptions are necessary to successful concentration upon the lessons of the next day. These conditions are impossible of realization in the great majority of the homes our research covers. In the room where our entering pupil studies there are often two or three younger children at play. Older sisters want the other room to entertain company. The mother is still at work on her household duties. There are calls for assistance with the housework or help with the " home work " of the younger children. Thus the high school boy or girl finds the preparation of to-morrow's lessons (most difficult in themselves) doubly difficult because of home conditions.

On the street the noises of children at play serve to increase the distractions and to invite the unwilling pupil from his work. There are games for the boys and visits for the girls to attract them from their studies. The boys and girls whose day is spent in offices or shops come home for their hours of relaxation and amusement. They seek out their high school friends and call them from their home study to join in an evening stroll or in some treat which they provide a "game," a walk, or a visit to the moving picture show.

The young high school pupil cannot help contrasting his own daily and nightly routine with that of his friend who is employed "down town." In every way his own life seems hard, confined and unnatural. The high school boy works harder than his employed friend and his reward is more often blame than praise. He has no money for amusements, he never has any pocket money to spend as his fancy dictates.

Among the girls especially the dresses of their employed friends are constant sources of envy. These girls whose work is over at five or six can now come home for an evening of care-free relaxation. They can go to parties or go out with their young men friends. Not so with the *successful* high school girl; she must for five nights a week deny herself the social pleasures of her circle of friends and shut herself away from her admirers while she struggles with Latin forms and syntax. Then even if her tasks are finished for the day, she must decline many opportunities for pleasure. She has no clothes to wear suitable to the occasion. From her father's weekly wages must come the rent, food and clothes for all. It is enough that she should be permitted to stay home from work to attend high school. The old clothes must do until they are outgrown.

In every way the work of the high school pupil seems hard, uninviting and entirely out of keeping with what appear to be the realities of life. The contrast between the abstractions of algebra and the life of the neighborhood is too great to be bridged save by an arch of faith which few indeed can construct.

SECTION II

HOME WORK

In practically all our larger high schools we no longer have one teacher giving instruction in history, literature and science, but rather have such a division of the work as will permit each teacher to devote his or her attention to only one field, or to closely allied fields, of knowledge. The chief arguments for this subdivision of the work of instruction are first, the better preparation which the school authorities are able to secure from teachers for the instruction in specific subjects, and second, the more economical and efficient service each teacher is thus able to render.

However, from the standpoint of the pupil, instruction by specialists is by no means an unmixed blessing. True it is that the specialist carries into the class room a love and enthusiasm for his specialty which is necessary for the best teaching as well as for the best learning. Also it is true that this enthusiasm is to a certain extent contagious so that the pupil who is earnest in his work often catches the spirit of enthusiasm which his teacher manifests. On the other hand, the narrow field of the teacher's work may very often make him forgetful of the requirements which the pupil must daily meet in the other subjects of the course and for which the pupil must also make daily home preparation.

The amount of home preparation which a high school pupil, who is earnest and conscientious, must give to the nightly "home-work" of his grade, is astonishing in its quantity. Indeed it cannot be fully appreciated until it is attempted by an adult whose familiarity with the varied subjects of instruction has lapsed with his maturer years.

In order to get this personal estimate of the difficulty of the daily home work, the investigator at one time and another attempted to prepare for several successive days the home work required at various times by various high school grades. This fictitious high school pupil found that the customary length of time allotted by the various subject-teachers was theoretically in the main one hour and yet only with extreme difficulty was an allotted lesson ever really completed within that time limit; more frequently an hour and three-quarters represented the effort necessary to secure a fairly thorough and retentive survey of the assigned lesson. It may be perhaps admitted that an adult, trained in concentration and with a moderate ability of discrimination in the selection and relation of essential facts, would do at least as well as the average pupil in school would do on the same lessons, so far as quickness of learning a lesson is concerned. But it may also be admitted that an adult may have a more exacting ideal as to what constitutes a well studied lesson and so may spend on such a lesson more than the minimum time necessary for the appreciation and temporary retention of the essentials.

Sample tables of home work will be found in the Appendix, pages 205 and 206.

SECTION III

NEW COURSES AND NEW TYPES OF SCHOOLS

Among the many conclusions possible there seems at least one conclusion that we all must draw from this investigation taken as a whole, namely that an extremely large percentage of the population enters high school unwilling or unable to benefit properly by the instruction which is offered at present.

To bar entirely these children from secondary education would be undemocratic and, in that it denies them equality of opportunity, unjust. On the other hand, to permit pupils to drag along in courses for which they have no aptitude and in which they are visibly receiving little benefit is equally unjust, particularly to the city which provides, at so great an expense, costly and capable instruction.

In the manufacturing world the past quarter century has seen tremendous advances in economy of production through the utilization of what were once considered waste products. There are no longer scrap heaps of materials thrown aside in the process of manufacture but each particle not used in the manufacture of the standard article is still worked over into something valuable and useful. No longer have we "waste products" in the processes of manufacture. So in the educational world there is need for the utilization of the waste-products now cast aside in our schools during the process of—"Making graduates." Granted that all of our raw material is incapable under any circumstances of being turned into that finished product which is now the main purpose of our school, still is it not possible to turn aside into useful by-products the half finished product which is now cast aside?

Is it not possible to re-sort, to re-classify our pupils two or even three times a year, so that we may constantly be doing valuable service for the pupil who clearly shows incapacity for progress along the present stereotyped "line of promotion" whatever that may be? In some such way as this may not the pupils, who now drop out with the consciousness of failure and with the stamp of high school disapproval, be kept in school to finish courses within their capabilities and so be brought to some distinct point of progress which, while it may not be that of "graduated" in the present meaning of the word, still may be recognized as an undisputed mark of educational advancement? Of course one serious difficulty in such a plan would soon prove to be the re-assignment to proper courses of the individuals who failed to show satisfactory percentages.

Should these pupils who might become useful "by-products" be *prohibited* from attempting the apparently impossible task of graduating in the regulation course or should they be allowed to struggle on and finally to fail? Even granted that we set up bars which will turn aside the less successful from a hopeless struggle toward the old style "graduation," into what new channels shall we turn them? Shall we who are older in years and in experience prescribe the altered courses and if so what means have we of enforcing our prescription? May not the pupil leave at any moment the fancy strikes him?

Everything seems to point toward the arrangement of several unified courses, elective in the main, which constantly diverge as the pupil progresses upward. At the outset perhaps one or at most two uniform courses may be provided which furnish the substantial basis for any of the subsequent courses. This initial course (of possibly fourteen weeks) would serve to "try out" all applicants and give the data for a re-assignment or further assignment of pupils and courses. In the second term our one or two courses may have diverged into three or four, and again the next term into five or six.

With shorter periods between promotions, say three instead of two terms in a school year, actual positive progress from term to term is more nearly assured and the continued adjustment of the courses to the pupil made more certain. Unsuitable readjustments in this same manner will be made more easy of correction and with less possibility of wasted effort and time.

This plan of progress would, it is at once seen, necessitate the abandonment of further distinct types of schools such as classical, technical, commercial and manual training high schools and instead provide many schools each with its own classical, technical, commercial and manual training courses. That this latter idea is already gaining acceptance is shown by the movement (1906) promoted by Mr. C. D. Kingsley of the Manual Training High School of Brooklyn. Mr. Kingsley has already produced evidence tending to show that the geographical location of a school is seemingly fully as potent in the selection of its pupils as the type of course it offers. Put in any separated district a classical high school and it will be filled very largely by the boys and girls of that immediate neighborhood. But if the school be of the commercial or manual training type the immediate neighborhood will still supply the great bulk of its pupils. In other words accessibility plays now altogether too large a factor in the selection of courses. The boy who now selects a classical course does so not entirely but often very largely because a classical high school is near at hand. Of course this very factor makes constantly for ill-adjustment. The classical pupil who early fails to gain promotion, still loyal to his new school, would rather "leave school" permanently than to take a transfer to the commercial course offered in a distant school, which he already regards as foreign, through athletic rivalry.

The argument for the cosmopolitan high school is further supported by the evidence secured from our study of rentals. When about $15 a month is the commonest rental, the item of car fares (and possibility of lunches away from home) is really a large financial factor in such a household's expense account.

When one talks of the economy of the present type of schools in construction, in equipment, in ease of administration and in maintenance, over the cosmopolitan type of school, he may be answered by calling attention to the fact that about eighty-five per cent of the money, time and energy now expended on these schools if not actually wasted is still expended upon those who will not or cannot avail themselves of the complete instruction so liberally if not lavishly prepared and offered.

SECTION IV

A NEW DAILY PROGRAM

Our present courses of study have been "enriched" past all possibility of digestion by the average child. One subject after another has come forward with its claims for recognition. The older subjects with the force of inherited tradition will not give way. So we have a compromise in which the pupil gains one or more new subjects of study at the loss of his free periods at school. As a final result we find no allowance for the preparation of lessons under ideal conditions at school, but instead a heaping up of home work to be prepared under most trying conditions at home.

We must find in this the suggestion that while the high school day be lengthened the subjects of study should be curtailed. Three subjects for recitation a day with adequate time for the preparation of these lessons under ideal conditions in the high school study hall will suffice in our ideal course.

The exceptional few who show signs of unusual ability may be allowed to study at home and so shorten their four years' course perhaps to three years, but the majority will leave their books in school when the day is over and so return in the morning more refreshed, more wide-awake, more capable of efficient mental work. Such a lengthened day will necessitate well planned recess periods, possibly even a distinct two session day or evening study period. It will mean harder work and longer hours for the instructors with properly increased compensation or substitute relief. With a lessened mental strain for the pupils and more surety of daily preparation we will no longer need to hold our sessions but five days in seven. Six days of work may be reasonably required, with possibly two part-free afternoons a week. Under this system the long vacations need not be as long for the pupils' sake, and the family that is making daily sacrifice to keep its children in school will have its period of deprivation thereby greatly shortened.

Of course this all means on the other hand, harder work for the instructor. If the efficiency of the instruction is to be maintained, it means frequent short vacations or rest periods more evenly distributed throughout the year. Possibly the rotation of instructors may be so arranged that no one may be permitted to work to the point of exhaustion, as not so infrequently happens to-day.

That these conditions for our ideal high schools partake to-day of the nature of hypotheses rather than assured solutions is frankly admitted in advance. But it is by hypothesis and verification that we make scientific progress.

We have collected our measurements and are entitled to form theories, in our opinion, consistent with them. It must remain for some progressive community with a flexible school system to make the innovation in a limited field. This field should be limited: indeed a single school mirroring conditions throughout the community would suffice.

SECTION V

LENGTH OF STAY AND LENGTH OF COURSE

Finally the fact that nearly half of all the entering pupils do not enter the high school with any fixed determination of completing the course should prove an unanswerable argument for the formation of unit courses of not over two years' duration.

By a unit course is meant the selection of such subjects of study as will through their combined influence take the pupil a definite step forward in his intellectual life. Latin, for instance, would not be permitted a place in a course but two years long. An introductory science course in which some idea will be given the pupil of the material world under the reign of inflexible laws might well replace the too specialized Biology. A shorter Algebra will replace the present college enforced requirements in that subject. The English will not serve to awaken a dislike of literature through the picking to pieces of Macaulay's Essays but rather be discursive and enjoyable, planned to give a bird's-eye view of many fields rather than to dig a mine in one.

For the few who plan to stay four years and then advance to college we may still carry on the work demanded by the colleges which serves chiefly to weed out the faint-hearted along with the too self-willed. But for the children who want some further education now (and not hereafter) let us plan a course that will supply their needs.

What a delight it would be to plan a course for the pupils themselves and not for the teachers of special subjects or their college professors; but what an absurd proposition! To disregard tradition and authority and to actually try to meet *present* conditions! Lives there the man so free from the bonds of tradition, so *natural* as to attempt it!

Yet slowly though surely the change is coming about; but always, for so custom binds us, a generation or more behind. With good reason we may hope to find in 1940 many things that are needed in 1910. Many things that are taught, but not needed, in 1910 will then have disappeared. In the four years since 1906 New York City has added a trade school for boys and a trade school for girls. Courses without Latin are now open to all pupils and indeed some courses without a foreign language may be followed. Yet despite the efforts of superintendents and teachers, we are still weighed down by the chains of an inherited conservatism that must apparently make our advances *always just too slow* to meet the *present* situation.

Recognizing our *present* high school material, its home, its aspirations, its limitations, we need *now* a shorter, more reasonable, more popular course in each of our high schools which will attract and *hold* the pupils from start to finish.

APPENDIX

COURSES OF STUDY IN THE NEW YORK CITY HIGH SCHOOLS

GENERAL COURSE (COLLEGE PREPARATORY)

GENERAL PROVISIONS

1. A period shall not exceed fifty minutes.

2. No new class in an elective subject need be formed in the second year for less than 25 pupils; in the third year for less than 20 pupils; in the fourth year for less than 15 pupils.

3. Students following this course shall present for graduation the satisfactory completion of the required work in subjects *starred* above and shall be given credit for the number of points indicated upon the satisfactory completion of each subject. The requirement for graduation shall be the satisfactory completion of work aggregating 150 points and the passing of such examinations as shall be set. Examination ratings secured by students who have completed this course of study in the examinations for admission set by approved colleges and universities, may be accepted for graduation from high school and entered upon the pupil's record, provided they are ratings obtained in subjects of the last high school year, and after said pupil has satisfactorily completed the high school course of study and the work of freshman year. Elections may be made from other subjects, so far as possible, in the order indicated. Students who are preparing for college will make elections in accordance with the admission requirements of the college to which admission is sought. Students who are applicants for admission to training schools are required to present in addition to subjects starred, Music III and IV, Drawing III and IV, and Science III.

The number of points to be given to a subject is determined as follows: For subjects not requiring preparation, points equal hours per week. For subjects requiring preparation, points equal twice the number of hours per week.

This rule may be applied to Bookkeeping and Stenography as indicated, if necessary.

4. In any term a student shall be considered as having satisfactorily completed a subject when he has received a final term mark of 60 per cent. For every 10 points obtained with a mark of 80 per cent or over, the student shall be entitled to one additional point.

5. Students shall be classified according to the number of points obtained, 20 points being regarded as a full term's work. A deficiency of 5 points may be allowed, provided that such deficiency is removed before another advance in classification is made. At the close of the summer vacation and at such other time as it may be feasible students shall be given an opportunity to remove deficiencies in class work by an examination to be set by the principal.

6. Not more than six years shall be allowed for completing the work of the course. And any student who has reached the age of 16 years and who has not attained, at the end of two years, one year's credit, or at the end of three years, two years' credit, shall be dropped from the roll

and discharged, unless the failure to secure the credits called for has been caused by prolonged illness or other reasonable cause.

7. All ratings and records shall be made at least twice a term. The ratings shall be made by combining the teachers' estimate of the pupils' proficiency, based upon frequent memoranda, with the results of such tests as may be given under the direction of the principal during the regular recitation periods and without previous announcement. The ratings at the end of the term shall summarize the previous ratings and shall represent the pupils' standing for the term. The students' records shall be made in figures, but reports to parents may be expressed in figures or letters. Equivalents: A = 85 to 100, B + = 70 to 84, B = 60 to 69, C = 50 to 59, D = below 50.

8. When the interests of a pupil demand it, the principal may modify the program of such pupil or permit him to follow a special program.

First Year

	Periods per week	Points
*English I	5	10
*Latin I, or German I, or French I	5	10
*Mathematics I, Algebra	5	10
*Science I, Biology, including Botany, Zoology and Physiology	5	10
*Drawing I	2	2
*Music I	1	1
*Physical Training I	2	2
*†English VI, Elocution I	1	1

†NOTE.—A continuation of the course in Elocution is also offered through the second, third and fourth years. When so taken add one point per year.

Second Year

*English II	3	6
*Latin II, German II, or French II	5	10
*Mathematics II, Plane Geometry	4	8
*History I (Greece and Rome)	3	6
Greek I	5	10
Italian I	5	10
Spanish I	5	10
†Science II, Chemistry	5	10
*Drawing II	2	2
*Music II	1	1
*Physical Training II	2	2
**Domestic Science (for girls)	4	4
Physiography	4	8

†NOTE.—Science II, Chemistry, may also be taken in the fourth year.

**NOTE.—In the course offered to girls in the Manual Training High School of Brooklyn, Sewing—4 periods per week is an elective.

Third Year

*English III	3	6
*Latin III, German III, or French III	5	10
*History II (England)	2	4
Science III, Physics	5	10
†Mathematics III, Algebra, Review and Advance	2	4
†Mathematics IV, Plane Geometry, Review and Advance	2	4
Greek II	4	8
Italian II	4	8
Spanish II	4	8
Stenography and Typewriting I	4	4

	Periods per week	Points
Bookkeeping I	3	3
Economics I	3	6
†Science II, Chemistry	5	10
†Science IV, Botany, Advance	4	8
Music III	1	1
Drawing III	1	1
*Physical Training	2	2

†NOTE.—Either course in Mathematics, Science IV, Botany, Advance, and Science V, Zoology, Advance, may also be taken in the fourth year.

NOTE.—In the course offered to girls in the Manual Training High School of Brooklyn, Cooking, 4 periods per week, and Millinery, 3 periods per week, are electives.

Fourth Year

*English IV	3	6
Latin IV, German IV, or French IV	4	8
Greek III	4	8
Italian III	4	8
Spanish III	4	8
Latin V, Additional and Supplementary Courses	3	6
Greek IV, Additional and Supplementary Courses	3	6
English V, Additional and Supplementary Courses	3	6
Science VI, Physiography	4	8
*History III, American History and Civics, Related English History	4	8
Mathematics V, Advanced Mathematics	4	8
Stenography and Typewriting II	3	3
**Domestic Science I	3	6
Commercial Law and Commercial Geography	3	6
History IV (Mediæval and Modern)	3	6
Music IV	1	1
Drawing IV	1	1
*Physical Training IV	2	2

**NOTE.—In the course offered to girls in the Manual Training High School of Brooklyn, Dressmaking, 4 periods per week, is an elective.

THREE YEAR COMMERCIAL COURSE OF STUDY

YEAR	FIRST TERM		SECOND TERM	
		Periods		Periods
I	English	5	English	5
	German or Spanish	4	German or Spanish	4
	History—Eng. and Mod. Europe	3	History—Eng. and Mod. Europe	3
	Arithmetic	3	Arithmetic	3
	Biology (Physiology)	4	Commercial Geography	4
	Penmanship	3	Penmanship	2
	Bookkeeping	2	Bookkeeping	3
	Correspondence	1	Correspondence	1
	Drawing (Free Hand and Design)	2	Drawing (Free Hand and Design)	2
	Music	1	Music	1
	Physical Training	1	Physical Training	1

YEAR	FIRST TERM		SECOND TERM	
		Periods		Periods
2	English	4	English	4
	German or Spanish	4	German or Spanish	4
	Hist.—American and Civics	3	Hist.—Amer., and Civics	3
	Physics, or a second lang.	4	Physics, or a second lang.	4
	Stenography	3	Stenography	3
	Algebra	3	Algebra	4
	Penmanship	1		
	Bookkeeping	3	Bookkeeping	3
	Drawing (Free-hand)	2	Drawing (Mechanical)	2
	Music	1	Music	1
	Physical Training	1	Physical Training	1
3	English	3	English	3
	German or Spanish	3	German or Spanish	3
	History of Commerce	3	Economics	2
	Chem., or a second lang.	3	Chem., or a second lang.	3
	Commercial Law	3	Commercial Law	3
	Geometry	3	Geometry	4
	Stenography	3	Stenography	3
	Typewriting	3	Typewriting	3
	Accounts	3	Accounts	3
	Drawing (Free-hand or Mechanical)	2	Drawing (Free-hand or Mechanical)	2

With the approval of the principal, a pupil may be permitted to substitute shopwork for a foreign language after the first year.

FIVE YEAR COMMERCIAL COURSE OF STUDY

First Year

Required	Periods
English	4
German, French, or Spanish	4
Algebra	4
Biology* (with especial reference to materials of commerce)	4
Business Knowledge and Practice**	6
Drawing (second half year)	2
Physical Training*	2
Music	1
	27

*Including Physiology.

**Including Local Industries and Government of the City of New York	2
Business Writing	2
Business Arithmetic, Business Forms and Methods	2

Second Year

Required	Periods
English	3
German, French, or Spanish	4
Plane Geometry	3
Chemistry (with especial reference to materials of commerce)	4

Required	Periods
History* (with especial reference to economic history and geography)	3
Stenography	3
Drawing and Art Study	2
Physical Training	2
	24

Electives	Periods
German, French, or Spanish	4
Bookkeeping and Business Forms	3
Business Arithmetic	1
Commercial Geography	1

*First half year, Beginning of Nations to 1300 A. D.
Second half year, Modern History to 1750.

Third Year

Required	Periods
English	3
German, French, or Spanish	4
Geometry and Algebra*	3
Physics	5
History** (with especial reference to materials of commerce)	3
Drawing and Art Study	1
Physical Training	2
	21

Electives	Periods
German, French, or Spanish	4
Bookkeeping and Business Arithmetic	3
Stenography and Typewriting	3
Drawing and Art Study	2
Commercial Geography	1

*In the second half year, students may elect additional Stenography and Typewriting or Bookkeeping in place of the second course in Mathematics, or may give double time to Mathematics by omitting either Stenography or Bookkeeping.

**First half year, English and Colonial History, 1620 to 1750. Second half year, Modern History (England and the Continent), 1750 to present time.

Fourth Year

Required	Periods
English	3
German, French or Spanish	4
Economics and Economic Geography	4
History of the United States (with especial reference to industrial and constitutional aspects)	4
Physical Training	2
	17

Electives	Periods
A foreign language	4
Advanced Chemistry	4
Economic Biology	4
Trigonometry and Solid Geometry	4

Electives	Periods
Elementary Law and Commercial Law*	4
Advanced Bookkeeping, Business Correspondence and Office Practice	4
Stenography and Typewriting	4
Drawing and Art Study	4
Modern Industrialism	1

*Students who do not elect law in the fourth year may receive instructions in Commercial Law in connection with Advanced Bookkeeping.

Fifth Year

Required	Periods
English	3
Logic, Inductive and Deductive	3
Physical Training	2
	8

Electives	Periods
A foreign language	4
Advanced Mathematics	4
Advanced Physics	4
Industrial Chemistry	4
Economic Geography	4
19th Century History, Europe and Orient; Diplomatic History, United States and Modern Europe	4
Banking and Finance, Transportation and Communication	4
Administrative Law and International Law	4
Accounting and Auditing	4
Business Organization and Management	4
Drawing	4
Advanced Economics	3

GIRLS TECHNICAL COURSE OF STUDY OF THREE YEARS

First Year

Required	Periods
English	5
Commercial Arithmetic	5
German, or French, or Spanish, or Group II, or Group III, of second year, and additional drawing	5
Drawing	2
Domestic Science and Art	5
Physical Training, including Physiology and Hygiene	2
Music	1
Declamation and Voice Training	1
	26

Second Year

Required	Periods
English	5
Physical Training	2
Music	1
Declamation and Voice Training	1
Drawing	2
	11

The modern language chosen in the first year may be continued during the second and third years as an alternative for music, declamation and drawing in the case of those who select Group I, Group IV, Group V, and Group VI.

Electives	Periods
Group I (Stenographers and Typewriters)	
Stenography, Typewriting, Bookkeeping, Penmanship, Spelling, Office Practice	19
Group II (Dressmakers and Embroiderers)	
Sewing, Draughting, Fitting, Study of Materials, Textiles, Color, Form and Design	19
Group III (Milliners)	
Millinery, Study of Materials, Trimming, Frame-making, Color, Form, and Design	19
Group IV (Designers)	
Design, Still Life, Plants, Casts, Composition, Picture Study, History of Ornament, Textiles, Interior Decoration, Draperies, Costume Design, Book Covers, Illustrating, Lettering	19
Group V (Printers)	
Typesetting, Printing	19
Group VI (Bookbinders)	
Bookbinding, Design	19
Group VII (Library Assistants)	
English	5
Ancient History	3
Geometry	4
German, French, Latin, or Spanish (Elect. 2) (5)	10
Physical Training	2
Music	1
Declamation and Voice Training	1
	26

Third Year

Required	Periods
English	5
Physical Training	2
Music	1
Elocution	1
	9

Electives	Periods
Group I, as in Second Year, with Commercial Law and Civics	21
Group II. as in Second Year	21
Group III, as in Second Year	21

Electives	Periods
Group IV, as in Second Year	21
Group V, as in Second Year	21
Group VI, as in Second Year	21
Group VII—Course for Library Assistants:	
English	5
A Foreign Language	4
Physical Training	2
Music	1
Library Economy	15
	27

Fourth Year

(Library Assistants)

Group VII:	Periods
English	5
A Foreign Language	4
American History and Civics	4
Library Economy	12
Physical Training	2
Mediæval and Modern History, or Additional Library Work	3
	30

BOYS' INDUSTRIAL COURSE

First Year

	Periods
English	5
Algebra	5
Free-Hand Drawing	2
Mechanical Drawing	4
Joinery and Cabinet-Making	10
Music	1
Physical Training, including Physiology and Hygiene	2
	29

Second Year

English	3
Plane Geometry	4
Chemistry	5
Free-Hand Drawing	2
Mechanical Drawing	4
Wood-Turning, Pattern-Making and Foundry	10
Physical Training	2
	30

Third Year

English	3
Plane Geometry and Trigonometry	3
Physics	5
Modern History	3
Mechanical and Architectural Drawing	4
Forging and Machine Shop Practice	10
Physical Training	2
	30

Fourth Year

Electives	Periods
English	3
Shop Mathematics	3
American History and Civics	4
Advanced Chemistry or Economics or Industrial and Commercial Law or Applied Mechanics, Steam and Electricity	4
Mechanical or Architectural Drawing	4
Special Shop or Laboratory Practice in one of the following electives:	10
(1) Building Construction (carpentry, sanitation, including heating and ventilating, electrical wiring and installation).	
(2) Advanced Forging and Tool-Making.	
(3) Advanced Pattern-Making and Foundry Practice.	
(4) Advanced Machine Shop Practice.	
(5) Industrial Chemistry, lectures and laboratory practice.	
Physical Training	2
	30

MANUAL TRAINING COURSE FOR BOYS

First Year

*Required	Periods
English (Grammar, Rhetoric and Composition)	5
German, or French, or Latin	5
Algebra	5
Free-hand and Mechanical Drawing	4
Joinery	6
	25

*Physiology and hygiene, as required by law, shall be taught the equivalent of four lessons a week for ten weeks.

Second Year

Required	Periods
English	3
German, or French, or Latin	5
Plane Geometry	4
Free-hand and Mechanical Drawing	4
Wood-Turning, Pattern-Making, Molding, and Sheet Metal Work	6
	22

Alternatives	Periods
German, or French, or Chemistry	4

Third Year

Required	Periods
English	3
German, or French, or Latin	5
Physics (only four lessons prepared)	5
Advanced Algebra and Plane Trigonometry	3
Mechanical Drawing	2
Forging	6
	24

Alternatives	Periods
German, or French, or Chemistry	5

Fourth Year

Required	Periods
English	3
A Foreign Language	4
English and American History and Civics	4
Mechanical Drawing	2
*Machine Shop Practice	6
	19

*With the approval of the principal, a pupil preparing for a technical college course may substitute an academic subject for machine-shop practice.

APPENDIX

HOME LESSONS ACTUALLY ASSIGNED (1911) AND TIME SPENT BY BRIGHT PUPILS IN THEIR PREPARATION.

(All lessons for the same date and the same school)

SUBJECT	BOOK	AMOUNT OF LESSON	MINIMUM TIME
		First Term	
English	Ivanhoe	Read up to Chap. 20	1 h.
Mathem'tics	Algebra, Wentworth	P. 65, 10 exercises	¾ h.
Drawing		Making designs	25 m.
German	Marchen und Erzahlungen by H. A. Guerber	Read pp. 8 and 9 and study 1st Stanza of Das Heidenroslein	½ h.
Biology		Study about corn and the kidney bean.	½ h.
		Total	3 h. 10 m.
		Second Term	
Algebra	Wentworth	Pp. 147 ff., 15 exercises	1 h.
Beg. Latin.	H. C. Pearson	Pp. 141-142 and article 299 (Latin without English).	½ h.
English	Homer's Iliad	Finish last four pages of Chap. 24.	½ h.
Zoology	Alvin Davison's Human Body and Health.	Pp. 94 to 97 to be read, and finish three experiments on saliva	1 h.
		Total	3 h.
		Third Term	
French	Madame Therésè	Pp. 13 and 14	1 h. 10 m.
Geometry	Schultze & Sevenoak (Plane Geometry)	Write out one theorem and draw an acute, obtuse, and right angle triangle with medians and altitudes.	20 m.
History	Greek	Draw a map of Egypt. Study Phoenicia.	20 m.
No English to-day.		Total	1 h.50 m.
		Fourth Term	
Geometry (Plane Geometry)	Schultze & Sevenoak.	Sec. 284, 287, Ex. 552-554, 559, 560, hand in 546.	¾ h.
Latin	Caesar's Gallic War.	Chap. XXV, book III, to "possit." Chap. XXVI.	¾ h.
English	Silas Marner	Chap. 4, 5, 6.	½ h.
French	La Tache du Petit Pierre, by J. Mairet.	Page 17, from line 16 to bottom of page 19.	½ h.
		Total	2½ h.
		Fifth Term	
Mathem'tics	Hall & Knight	20 to 30 examples	1 h.
English	Sesame and Lilies	5 to 7 paragraphs	½ h.
Latin	Cicero	About 25 line translation	1 h.
History	English History	10 pages	¾ h.

SUBJECT	BOOK	AMOUNT OF LESSON	MINIMUM TIME
		Fifth Term—Cont.	
Physics....	....	3 or 4 para., sometimes problems.	¾ h.
French.....	Chardenal, Fr. Composition by Francois, L'enfant de la Lune by Mairet	1 lesson a week in Grammar..	½ h.
		1 lesson a week in Composition	½ h.
		2 pages in reading, three times a week.	1 h.
		Total................	4½–5 h.
		Sixth Term	
Physics....	First Course in Physics by Millikan & Gale.	5 or 6 paragraphs to read, or 3 or 4 paragraphs and 4 or 5 problems.	¾ h.
History....	English History.	10 or 11 pages to read, or 7 or 8 pages and a map to study.	¾ h.
German....	Practical German Grammar by Edw. P. Cheyney.	About 2 or 3 articles.........	¾ h.
	Germelshausen by Friederich Gerstacker.	From 2 or 3 pages.	½ to ¾ h.
	German Composition by Chas. Harris.	1 anecdote................	½ h.
		Total................	3¼ h.
		Seventh Term	
French.....	Ex. in Fr. Syntax and Composition by Jeanne Bouret.	Ex. 34, pp. 54, 55; 2 sentences not consecutive.	1 h.
Physiography	R. S. Tarr......	Text pages 1-12 and 397-402 to be read in preparation.	20 m.
History....	United States...	Pages 112-126, extra questions to be answered.	1 h.
English....	Burke's Speech on Conciliation with America.	Analysis of each paragraph. Par. 78-88, pages 44-51.	1 h.
Geometry..	(Plane Geom.)..	Page 32, lesson to commence at Ex. 127.	40 m.
		Total................	4 h.
		Eighth Term	
English....	Merchant of Venice	Read the book, write a paragraph describing a scene.	2½ h.
History....	James & Sanford	Answer question given in book	1½ h.
French.....	Tracer & Squan Gram.	16 pages..................	1 h.
Geometry..	Schultz's Geom.	Pg. 253-270, 24th exercise. Prop. 36-37-38-39, originals under each.	40 m.
		Total................	5 h. 40 m.

Date Due

APR 30 '43
MAY 10 '43

373.7471 V227 15887

Van Denburg

Causes of the elimination of students in public secondary schools of New York city.

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